

**OWATONNA
TOOL CO.**

OWATONNA, MINNESOTA
U. S. A.

CATALOG
NUMBER
49-J

Chg. my Acct. ☐ C. O. D. ☐

NAME

STREET

CITY

STATE

NUMBER & NAME OF TOOL

PRICE**TOTAL**

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F O R E W O R D

ALMOST A QUARTER OF A CENTURY of experience and progress in the building of quality maintenance tools has gone into the research, design and development of the OTC tools shown in this new catalogue. Through these years it has been our aim and ambition to build the finest tools on the market. How well we have attained that goal is reflected in the thousands of satisfied customers who insist on using "nothing but OTC", and the thousands of new customers who are joining the ranks of OTC users every year.

Honesty of design and quality of material and workmanship is a standard we have adhered to over the years.

OTC is also well known for its excellence and variety of special tools for the automotive, tractor, aircraft and industrial fields. In this new catalogue a number of these special tools have made their first appearance and will be warmly welcomed by the trade.

Special emphasis is placed on the OTC PULLING SYSTEM which is the most complete, the most universal and the most versatile set of tools ever designed for the removal of bearings, gears, wheels, pulleys, sheaves, bushings, shafts and other close-fitting parts. Twelve major tractor, six major truck and eight major bearing manufacturers have approved and are recommending OTC Pullers to their dealers and users. This unqualified endorsement is your best guarantee of quality, long life and satisfaction.

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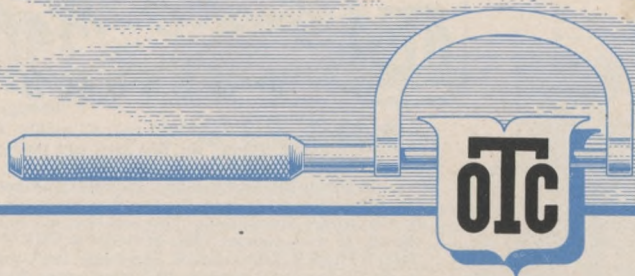
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G U A R A N T E E

OTC Tools are guaranteed against defects in materials and workmanship. Tools found not defective will not be replaced. Any tool that has been abused, worn out, heated, ground or otherwise altered, or used for a purpose other than that for which it was intended will not be replaced. Final determination of defects must be made at the factory.

Inspection

All OTC Tools are thoroughly inspected before leaving our plant and each customer is assured of receiving a new tool of equal quality and design as that furnished to everyone else. There are no "seconds" and every OTC tool must meet the rigid standards set by the Owatonna Tool Company.

We reserve the right to make changes in design or construction without obligation to incorporate such changes in tools previously sold.

Service

We offer service on OTC tools at any time during their life at a cost to the user covering only the material and labor necessary to put them in first class condition. Parts can be purchased to replace those lost or worn out. Consult the parts price list in the rear of this catalogue for identification and prices on parts.

THE OTC NUMBERING SYSTEM

The OTC numbering system is easy to understand as it follows a definite pattern. All wrenches are numbered in 32nds of an inch, and prefix letters are used to designate types. For example an E-1618 wrench is an END wrench with $\frac{1}{2}$ " x $\frac{1}{8}$ " openings; the 16 designating $\frac{1}{2}$ " and the 18 designating $\frac{1}{8}$ ". A $\frac{3}{4}$ " Combination Wrench is C-24, a $\frac{1}{2}$ " x $\frac{1}{16}$ " Box Wrench is B-2022, etc. Standard Sockets with $\frac{1}{2}$ " Square Drive are numbered in the 100 series, Junior $\frac{3}{8}$ " Drive Sockets in the 200 series and Heavy Duty $\frac{3}{4}$ " Drive in the 300 series. For example a $\frac{3}{4}$ " $\frac{1}{2}$ " Drive Socket is 128-100 plus $\frac{3}{4}$ "; a $\frac{3}{8}$ " Socket in the $\frac{3}{4}$ " Drive is 328, etc. Corresponding sizes of Handles are numbered similarly—but with a "H" prefix—a 10"- $\frac{1}{2}$ " Drive Extension is H-173 while a $\frac{3}{8}$ " Drive 10" Extension is H-273. Ford tools are numbered in the 400 series. Chevrolet, Plymouth, Chrysler, etc., are numbered in the 500 series.



FIRE POLICY

Every year hundreds of maintenance shops are destroyed by fire and very often the tools in these shops are not insured. We recognize that the loss of the tools of his trade presents a very serious loss to the average mechanic.

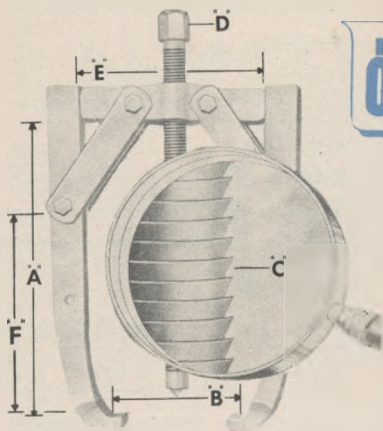
In the past we have reclaimed these tools and put them in good serviceable condition for our customers without charge. This has now become an established policy with OTC and we will perform this service on all OTC tools regardless of when they were purchased.

This policy does not cover tools carried in stock by OTC distributors.

The OTC tools you now have are covered under this policy and we agree to refinish and re-heat-treat all OTC tools that have been damaged by fire and that can be reclaimed. Such tools will be reclaimed at a cost to our customer of only the transportation both ways and the cost of such parts which may be missing or unserviceable.

OWATONNA TOOL CO.

OWATONNA, MINNESOTA



Grip-O-Matic PULLERS

These pullers are the ultimate in design and quality. Their patented gripping feature, the thin jaws and their great strength makes them the most universal and most versatile pullers on the market today. Each size is automatically adjustable to a wide range of applications made easy by the linkage arrangement. They are safe and will not slip off the work because THE TOUGHER THE PULL THE HARDER THEY GRIP. The Power-Pitch threads on the forcing screw provides 32% more power than the conventional V-type thread.

A wide range of sizes is provided to fit every possible use from ignition and electrical work to heavy maintenance jobs in large industrial plants. There is no job too large or too small for an OTC Grip-o-matic Puller.

These tools are approved and recommended by Timken, Hyatt, New Departure, M-R-C, SKF, Federal and other leading bearing manufacturing companies for removing their bearings.

| SPECIFICATIONS | OTC | "A" | "B" | "C" | "D" | "E" | "F" | Approx. | Weight |
|----------------|----------------------------|---------------|----------------|--|----------------------------------|--------------------------|---------|---------|--------|
| | Grip-o-matic Puller No. | Max. Reach | Max. Spread | Length and Diameter of Forcing Screw | Size of Forcing Screw Head | Length of Head Nut | Reach | | |
| | 1000 1/2-L | 3 3/8" | 0" to 4" | 3 3/8" x 4 1/2" | 1 1/2" Sq. | 2 1/4" | 2 1/4" | — | 14 oz. |
| | *1001 | 3 1/4" | 0" to 6" | 3/8" x 6" | 3/8" Sq. | 3" | 1 3/4" | 5 | 1 3/4 |
| | 1001-L | 5 1/2" | 0" to 7" | 3/8" x 6" | 3/8" Sq. | 3" | 4" | 5 | 2 |
| | *1002 | 5 1/2" | 0" to 8" | 11/16" x 9" | 3/4" Sq. | 4 3/8" | 3 3/4" | 9 | 4 1/2 |
| | 1002-L | 8 1/2" | 0" to 10" | 11/16" x 9" | 3/4" Sq. | 4 3/8" | 7 1/4" | 9 | 5 |
| | 1003 | 10" | 0" to 12" | 13/16" x 12" | 3/4" Sq. | 6 3/8" | 7 1/2" | 15 | 10 1/2 |
| | 1003-L | 15" | 0" to 14" | 13/16" x 12" | 3/4" Sq. | 6 3/8" | 12 3/4" | 15 | 13 |
| | 1003 1/2 | 14" | 0" to 14" | 1" x 13 1/2" | 1 1/4" Hex. | 9" | 10 1/4" | 22 | 23 |
| | 1003 1/2-L | 18" | 0" to 16" | 1" x 13 1/2" | 1 1/4" Hex. | 9" | 14 3/4" | 22 | 26 |
| | 1004 | 15 1/2" | 0" to 16" | 1 1/4" x 15" | 1 1/4" Hex. | 11" | 9 3/8" | 28 | 37 1/2 |
| | 1004-L | 22" | 0" to 20" | 1 1/4" x 15" | 1 1/4" Hex. | 11" | 16" | 28 | 42 3/4 |
| | 1005 | 21 1/2" | 0" to 26" | 1 3/4" x 15" | 1 3/4" Hex. | 11" | 15" | 35 | 57 |
| | 1005-L | 28" | 0" to 26" | 1 3/4" x 15" | 1 3/4" Hex. | 11" | 21" | 35 | 62 |
| | 1006 | 24" | 0" to 30" | 2" x 18" | 2 3/8" Hex. | 16" | 17" | 50 | 139 |
| | 1006-L | 36" | 0" to 36" | 2" x 18" | 2 3/8" Hex. | 16" | 29" | 50 | 143 |

*With double-end reversible arms.

Grip-O-Matic PULLER

NUMBER 1001

Especially practical for removing generator and mag-
neto gears and bearings but equally good for small
timing gears, pinions, bearings and other parts that
are usually difficult to remove. This puller has revers-
ible arms. See table above for specifications.

Long, single-end jaws are also available.

No. 1001-L—Grip-o-matic Puller. Wt. 1 3/4 lbs.

No. 1001L-1—Single-end Jaws(only) 8" reach Wt. 3/4 lb.

SIDE CARRIER BEARING SPECIAL JAWS No. 1001-1B

These new jaws are designed to remove and install
Side Carrier Bearings on Chevrolet, Buick and GMC
Trucks. Step Plate 630-G is used to install Chev. Side
Carrier Bearings as illustrated in Cut "B". To re-
move these bearings the proper size Step Plate must
be used. For Chev. use 630-5. For Buick and GMC
Trucks select right size on page 11.

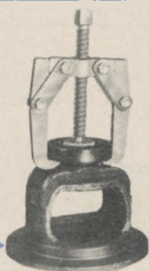
No. 1001-1B—Special Jaws (only). Wt. 3/4 lb.

No. 1001-C—Puller with 1001-1B Jaws, 1 3/4 lbs.

No. 630-G—Special Step Plate. Wt. 1/2 lb.

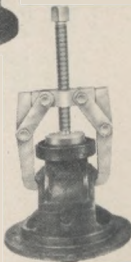
No. 1022—Set 1001-1B Jaws and 630-G Step Plate.

Wt. 1 1/2 lbs.



This illustration
shows the No.
1001 Grip-O-
matic equip-
ped with No.
1001-1B jaws
pulling the
Chevrolet Side
Carrier Bearing.
A Step Plate No.
630-5 is used
over the end of
the housing.

This illustration
shows the 1001
Grip-O-matic
equipped with
the No. 1001-1B
jaws installing
the Chevrolet
Side Carrier
Bearing. The
special Step
Plate No. 630-G
must be used in
this operation.

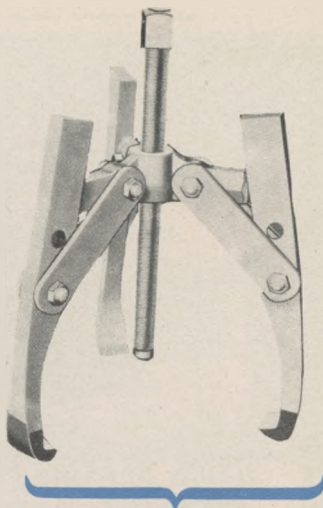




Triple Grip Grip-O-Matic PULLERS

OTC Triple-Grip, non-slip gear pullers are built in the same sizes and capacities as the two arm pullers illustrated and described on the opposite page and are available in both long and short arms. They provide the means and the power to pull gears, flywheels, pulleys and other parts where it is necessary to apply the arms between spokes and where no other puller can be applied. It permits a 3-point grip which on many operations is necessary.

Customers already having the 2-arm Pullers need only purchase the 3-way forged head and one arm assembly to obtain a 3-arm Puller. Customers who want both types need only purchase a 3-arm Puller and the 2-way head of the corresponding size to obtain the advantages of both types. Arms, forcing screws, straps and cap screws are interchangeable.

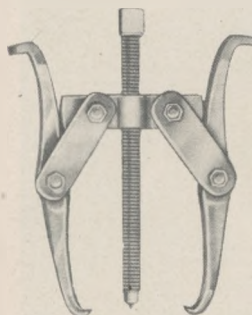


THREE ARM
Grip-O-Matic
PULLER IN ACTION

| 3-Arm Grip-o- matic No. | "A" Max. Reach | "B" Max. Spread of Arms | "C" Length and Dia. of Screw | "D" Size of Screw Head | Cap. in Tons | Wt. Lbs. |
|----------------------------------|----------------------|----------------------------------|---------------------------------------|---------------------------------|--------------------|-------------|
| *1011 | 3 1/4" | 0" to 6" | 3/4" x 6" | 3/8" sq. | 6 | 21 1/2 |
| 1011-L | 5 1/2" | 0" to 8" | 3/4" x 6" | 3/8" sq. | 6 | 21 1/2 |
| *1012 | 5 1/2" | 0" to 8" | 1 1/8" x 9" | 3/4" sq. | 9 | 51 1/2 |
| 1012-L | 8 1/2" | 0" to 10" | 1 1/8" x 9" | 3/4" sq. | 9 | 61 1/2 |
| 1013 | 10" | 0" to 12" | 1 1/8" x 12" | 7/8" sq. | 15 | 14 |
| 1013-L | 15" | 0" to 14" | 1 1/8" x 12" | 7/8" sq. | 15 | 18 |
| 1013 1/2 | 14" | 0" to 14" | 1" x 13 1/2" | 1 1/4" hex. | 22 | 33 |
| 1013 1/2-L | 18" | 0" to 16" | 1" x 13 1/2" | 1 1/4" hex. | 22 | 37 |
| 1014 | 15 1/2" | 0" to 16" | 1 1/4" x 15" | 1 1/8" hex. | 28 | 54 |
| 1014-L | 22" | 0" to 20" | 1 1/4" x 15" | 1 1/8" hex. | 28 | 60 |
| 1015 | 21 1/2" | 0" to 20" | 1 1/2" x 15" | 1 7/8" hex. | 35 | 82 |
| 1015-L | 28" | 0" to 26" | 1 1/2" x 15" | 1 7/8" hex. | 35 | 93 1/2 |
| 1016 | 24" | 0" to 30" | 2" x 18" | 2 3/8" hex. | 50 | 175 |
| 1016-L | 36" | 0" to 36" | 2" x 18" | 2 3/8" hex. | 50 | 192 |

*Double-end, reversible arms. For A, B, C and D, see illustration page 4.

Grip-O-Matic PULLER No. 1002

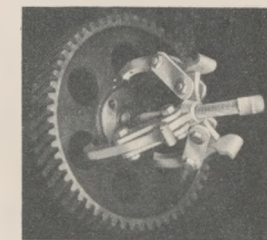


An extremely popular puller in all types of maintenance work. The reversible jaws, one end having thin, the other having slotted hooks, make a wide range of work possible. The thin hooks can be applied in restricted places and the slotted hooks provide the means for hooking onto cap screws to remove gears and parts which have tapped holes. It has a range from 0" to 8" which adapts it to automotive, aircraft, truck, refrigeration and other maintenance work. Long, single-end jaws to provide additional reach are also available for this tool.

No. 1002—Grip-o-matic Puller.

Wt. 4 lbs.

No. 1002L-1 — Single-end Jaws (only) 10" reach. Wt. 2 1/4 lbs.

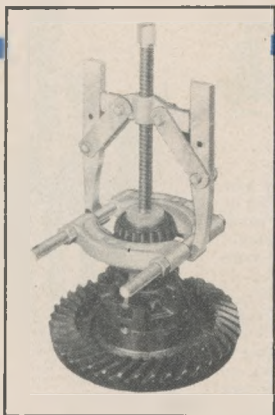


The illustration above shows the No. 1011 Grip-o-matic Puller pulling a gear. In this case it was necessary to apply the puller to the holes in the gear since it was impossible to hook onto the outer circumference.

OTC 3-way Triple-grip Pullers are available in a wide range of sizes and each size is adjustable to a variety of applications. They are especially suitable for industrial pulling jobs.

No service shop, regardless of the type of maintenance work done, should be without two or three of these versatile tools.

Consult the table left above for the pullers to meet your requirements.



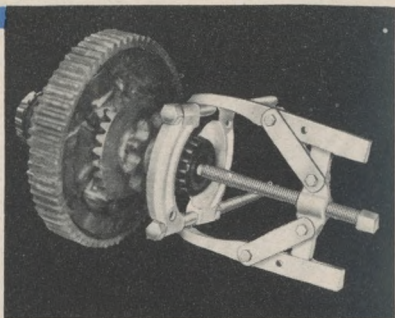
USING BEARING PULLING ATTACHMENTS WITH GRIP-O-MATICS



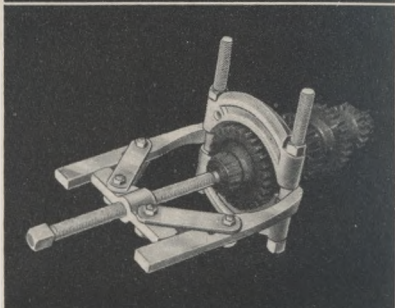
1. Removing an axle shaft rear bearing without damage is made easy with this combination.
2. The same combination is used to remove a Timken bearing from a differential shaft assembly.
3. In this photograph the No. 1003 Grip-o-matic used with the No. 952 Pulling Attachment is shown removing a counter shaft gear and bearing at the same time.
4. Removing a Timken bearing from a differential gear and sprocket assembly is simplified as shown in Figure 4.
5. The No. 1001 Grip-o-matic in use with the No. 950 Attachment is shown removing a pulley gear bearing.



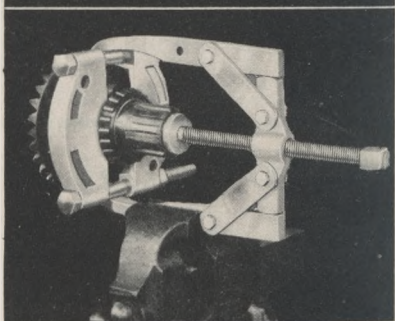
OTC Bearing Pulling Attachments are designed especially for the removal and replacement of bearings but are actually used for a great many other jobs as well. Used with OTC Push-Pullers and Grip-o-matic Pullers they solve many otherwise impossible service and maintenance operations.



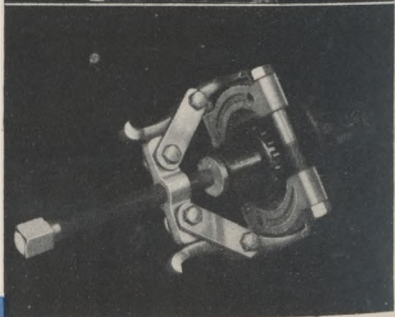
2



3



4



5



BEARING PULLING ATTACHMENTS

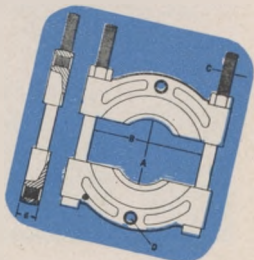
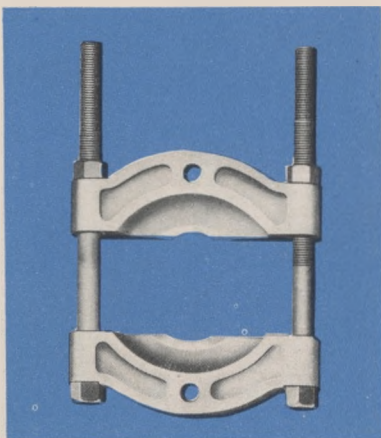
OTC Bearing Pulling Attachments are available in six sizes ranging in capacity from a minimum of 0" to a maximum of 10" and in proportionate strength and ruggedness. There is an attachment for each corresponding size of Grip-o-matic Puller and Push-Puller. (See pages 4 and 8 for Pullers.)

Bearing Pulling Attachments increase the scope and range of pullers and no set of pullers is complete without two or three of these attachments. The knife-like edges of these tools can be forced behind a bearing or gear where space is too limited to apply the hooks of a puller. In this manner many parts can be removed without damage and at a substantial saving in time.

By exerting the pulling strain against the inner race instead of against the rollers or snap-rings, bearings can be removed quickly and easily without damage, using either an OTC Grip-o-matic or Push-Puller as the power unit.

These attachments can also be utilized as arbor press bed plates and are very practical for this purpose.

The first four sizes 950, 951, 952 and 952-A are recommended for automotive, tractor, aircraft and refrigeration work. The last two sizes are recommended for industrial maintenance purposes. The specifications below will permit you to select the sizes to meet your requirements.



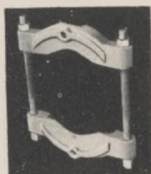
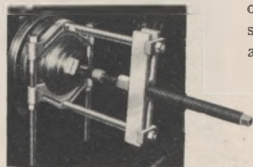
SPECIFICATIONS

| Tool No. | "A" | | "B" | "C" | "D" | "E" | Wt. in Lbs. | Use with Grip-o-matic No. | Use with Push-Puller No. |
|----------|------|------|-----|-----|--------|------|-------------|---------------------------|--------------------------|
| | Max. | Min. | | | | | | | |
| 950 | 2½" | 0" | 2½" | 1½" | 3½"-16 | 3½" | 1¼ | 1001-1002 | 515 |
| 951 | 4½" | 0" | 4½" | 2½" | 5½"-18 | 18½" | 5 | 1002-1003 | 927-930 |
| 952 | 5½" | 1" | 6" | 3½" | 6½"-18 | 11½" | 11 | 1003-1003½ | 930-938 |
| 952-A | 9" | 1" | 6" | 3½" | 5½"-18 | 11½" | 12 | 1003-1003½ | 930-938 |
| 952-D | 7½" | 1" | 7½" | 1½" | 1"-14 | 1½" | 19¾ | 1003½-1004 | 938-P-939 |
| 953 | 9" | 1" | 10" | 1½" | 1"-14 | 1½" | 41¾ | 1004-1005 | 939 |

SHEAVE PULLER ATTACHMENTS

OTC Sheave Puller Attachments are used with either OTC Grip-o-matic Pullers or Push-Pullers as shown in the table below. They simplify the removal of single or multiple drive sheaves without damage. The attachment

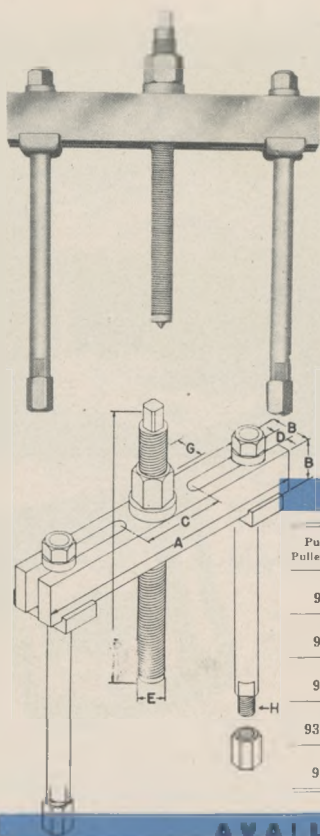
is clamped down in the V-groove and thus distributes the pulling strain evenly around a large percentage of the periphery. This tool is essential in every industrial plant and is a necessity also on large tractors and diesel engines. Furnished in two sizes as listed below.



SPECIFICATIONS

| Tool No. | SPREAD | | Use with Grip-o-matic No. | Use with Push-Puller No. | Wt. Lbs. |
|----------|--------|------|---------------------------|--------------------------|----------|
| | Max. | Min. | | | |
| 679 | 6" | 1½" | 1002-1003 | 927-930 | 4¼ |
| 680 | 10" | 2½" | 1003½-1004 | 930-938 | 23½ |

SEE PARTS LIST IN REAR OF CATALOGUE



PUSH-PULLERS

The most versatile and universal tools of their kind, OTC Push-Pullers will actually do more difficult removing and installing jobs than any similar tool on the market. It is actually a portable press which can be used on field or shop maintenance jobs. It is a basic tool of the OTC PULLING SYSTEM and with its attachments and adaptors is recognized as the most outstanding tool of its kind. It is used to remove or replace bearings, gears, pinions, pulleys, wheels, bushings, etc., and does these jobs without damage to expensive parts.

OTC Push-Pullers are approved and recommended by leading Tractor and Bearing manufacturers and are endorsed by maintenance men everywhere.

Five sizes are available to meet the maintenance requirements of every industry.

Many industrial applications showing this tool with its attachments are illustrated in our new bulletin No. PE-1949 which can be obtained from any OTC distributor. Bulletins are available also for each make of tractor and show this tool in operation on tractor maintenance jobs.

SPECIFICATIONS

| Push-Puller No. | "A" | "B" | "C" | "D" | "E" | "F" | "G" | "H" | Standard Unit | Wt. less legs, lbs. |
|-----------------|---------|--------|--------|------|-----------|---------|--------|---------|------------------------|---------------------|
| 927 | 8 1/4" | 1 3/8" | 2" | 1/2" | 5/8"-18 | 12" | 1" | 3/8"-18 | 927 with 927-A legs | 7 |
| 930 | 10 1/2" | 2" | 3 1/2" | 3/4" | 1"-14 | 13" | 1 1/2" | 5/8"-18 | 930 with 930-D legs | 18 3/4 |
| 938 | 13 1/2" | 2" | 3 1/2" | 3/4" | 1"-14 | 13" | 1 1/2" | 5/8"-18 | 938 with 930-D legs | 20 3/4 |
| 938-P | 16" | 2 1/4" | 6 1/2" | 1" | 1 1/4"-12 | 15 1/2" | 1 3/8" | 1"-14 | 938-P with 938-PA legs | 33 |
| 939 | 18" | 2 1/2" | 8 1/2" | 1" | 1 1/2"-12 | 16 1/2" | 2 3/4" | 1"-14 | 939 with 939-A legs | 46 1/2 |

AVAILABLE LEG LENGTHS

| Leg Nos. | 927-A | 927-A1 | 927-B | 930-B | 930-C | 930-D | 930-E | 930-F | 938-PA | 938-PB | 938-PC | 939-A | 939-B | 939-C |
|----------------------|--------|---------|---------|---------|---------|--------|--------|--------|--------|--------|--------|-------|-------|-------|
| Length | 6 3/4" | 11 3/4" | 16 3/4" | 16 1/2" | 22 1/4" | 9 1/2" | 4 1/2" | 30" | 8" | 18" | 28" | 8" | 18" | 28" |
| Use with Tool No. | 927 | 927 | 927 | 938 | 930 | 930 | 930 | 938 | 938-P | 938-P | 938-P | 939 | 939 | 939 |
| Use Connectors No. | 916 | 916 | 916 | 924 | 924 | 924 | 924 | 924 | 932-B | 932-B | 932-B | 932-B | 932-B | 932-B |
| Weight per Pair—Lbs. | 1 1/2 | 2 1/4 | 3 3/4 | 6 1/2 | 9 | 4 1/4 | 2 1/2 | 11 1/2 | 7 | 12 1/2 | 18 | 8 | 15 | 22 |

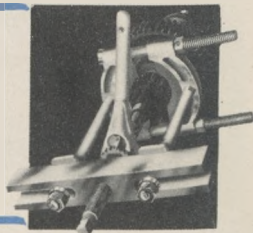


PUSH-PULLER RATCHET NO. P-61

Especially built for use on OTC Push-Pullers Nos. 930 and 938. Speeds up pulling operations 50%. Can also be used with detachable sockets by the addition of the proper adaptors. See Page 54. For extra leverage on pulling operations or for use as a socket wrench a detachable tubular handle is available.

No. P-61—Reversible Push-Puller Ratchet. (Head only) Wt. 5 1/2 lbs.

No. M-28—Tubular Handle (only) for P-61. Wt. 2 3/4 lbs.

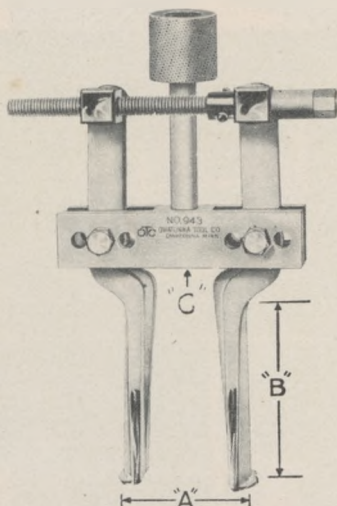




BEARING CUP PULLING ATTACHMENTS

The removal of bearing cups (outer races) from blind holes presents a very serious maintenance problem where adequate tools are not available. With OTC tools outer bearing races can be removed and in some instances replaced quickly and easily and without damage either to the race or to the housing. The OTC Bearing Cup Pulling Attachments obtain a positive grip and will not slip off when pressure is applied. They eliminate the need for a cutting torch or the ruinous "chisel" method.

Five Bearing Cup Pulling Attachments are available, giving a range of adjustments from $1\frac{1}{2}$ " to 9" inside diameter. With each size attachment a corresponding size of Push-Puller is available to furnish the power. The cross-sectional line drawing right below shows the proper procedure for the use of these tools.



SPECIFICATIONS

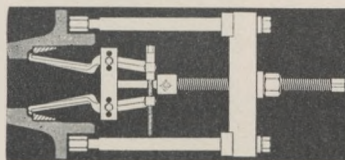
| Puller No. | "A" | | "B" | "C" | Tapped Hole | Weight Lbs. | Use with Tool No. |
|------------|--------|--------|--------|--------|-------------|-------------|-------------------|
| | Max. | Min. | | | | | |
| 943 | 6" | 1 1/2" | 4" | 5 1/4" | -18 | 4 1/2 | 927-930-938 |
| 943-A | 6" | 1 1/2" | 5 1/2" | 5 1/4" | -18 | 5 1/2 | 927-930-938 |
| 943-C | 5" | 1 1/2" | 2 1/4" | 5 1/4" | -18 | 4 1/2 | 927-930-938 |
| 943-D | 7 1/2" | 2" | 5" | 1" | -14 | 9 1/2 | 938-P |
| 947 | 9" | 3" | 6" | 1" | -14 | 13 1/2 | 939 |



PULLER SCREW No. 515-S

The 943 can be used as a separate pulling unit by using this forcing screw. With a Step Plate of proper size (see page 11) bearing outer races can be pulled from blind holes quickly and easily.

No. 515-S—Forcing Screw, $12\frac{1}{2}$ " long, Weight $1\frac{1}{4}$ lbs.



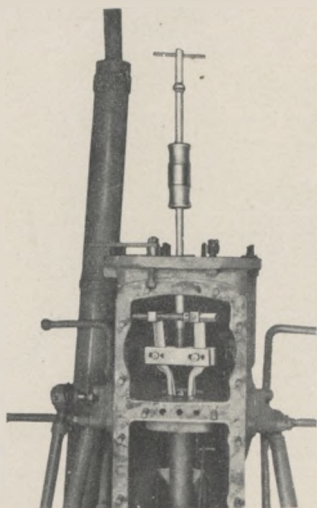
SLIDE HAMMER PULLER No. 943-T

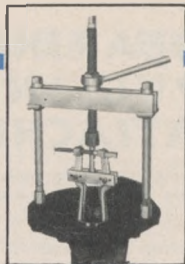
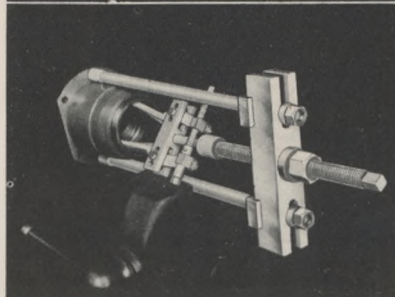
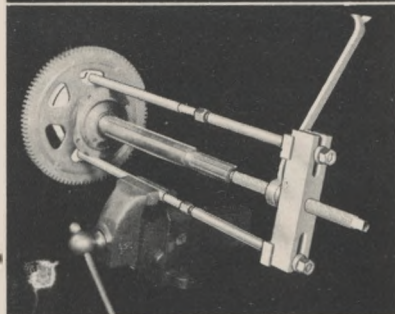
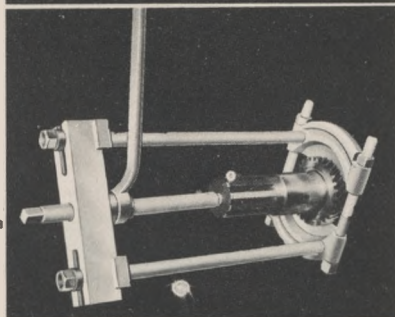
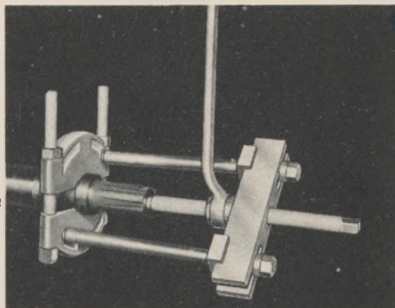
Popular demand for a complete inside puller has necessitated the addition of a Slide Hammer assembly which can be used with the No. 943 Bearing Cup Pulling Attachment. This combination can be used to pull outer bearing races, grease retainers, oil seals, etc., and is a fast operating tool when used in this manner. Any customer already having an OTC No. 943, 943-A or 943-C Bearing Cup Pulling Attachment needs only purchase the 943-S Slide Hammer assembly to obtain the complete tool.

No. 943-T—Slide Hammer Puller complete.
Wt. $9\frac{3}{4}$ lbs.

No. 943-S—Slide Hammer Assembly (only).
Wt. $4\frac{3}{4}$ lbs.

The illustration at the right shows a typical operation involving the 943-T Slide Hammer Puller. Removing the bearing cup from this position would be a time consuming job without the proper tool.





TYPICAL APPLICATIONS OF PUSH-PULLERS IN ACTION

1. Removing a bearing cup with the No. 943 Cup Pulling Attachment.
2. Removing an inner Hyatt race with the No. 952 Bearing Pulling Attachment.
3. Removing a crankshaft gear with the No. 952 Bearing Pulling Attachment.
4. By joining two pairs of legs together the additional reach necessary to install this spline shaft is made easy. The No. 952 Bearing Pulling Attachment is used behind the gear.
5. The No. 943 Bearing Cup Pulling Attachment is shown with the Push-Puller removing a bearing cup from a differential quill.
6. In this illustration the No. 938 Push-Puller is shown in combination with the No. 952 Bearing Pulling Attachment removing a tapered bearing from an axle shaft.

THREADED ADAPTORS

A complete range of female adaptors for use with OTC Push-Pullers. Utilized as connectors for joining two pair of Push-Pullers Legs or as adaptors for use in pulling axles, pinion shafts, cam shafts, etc. The line drawing at the right illustrates their uses.

| No. | Size | Wt. | No. | Size | Wt. |
|-------|--|--------|-------|--|--------|
| 916 | $\frac{1}{2}$ -20 x $\frac{5}{8}$ -18 | 2 oz. | 936-A | 1-14 x $1\frac{1}{4}$ -12 | 12 oz. |
| 920 | $\frac{5}{8}$ -18 x $\frac{5}{8}$ -18 | 2 oz. | 940 | $\frac{5}{8}$ -18 x $1\frac{1}{4}$ -12 | 7 oz. |
| 924 | $\frac{5}{8}$ -18 x $\frac{3}{4}$ -16 | 3 oz. | 940-A | 1-14 x $1\frac{1}{4}$ -12 | 15 oz. |
| 925 | $\frac{5}{8}$ -18 x $\frac{1}{2}$ -20 | 3 oz. | 940-B | 1-14 x $1\frac{1}{4}$ -18 | 15 oz. |
| 926 | $\frac{5}{8}$ -18 x $1\frac{1}{4}$ -16 | 3 oz. | 941 | $\frac{5}{8}$ -18 x $1\frac{1}{4}$ -7 | 7 oz. |
| 928 | $\frac{5}{8}$ -18 x $\frac{7}{8}$ -14 | 4 oz. | 941-A | 1-14 x $1\frac{1}{4}$ -7 | 15 oz. |
| 929 | $\frac{5}{8}$ -18 x $\frac{7}{8}$ -18 | 4 oz. | 948 | $\frac{5}{8}$ -18 x $1\frac{1}{2}$ -12 | 13 oz. |
| 932 | $\frac{5}{8}$ -18 x 1-14 | 5 oz. | 948-A | 1-14 x $1\frac{1}{2}$ -12 | 15 oz. |
| 932-B | 1-14 x 1-14 | 10 oz. | 949 | $\frac{5}{8}$ -18 x $1\frac{1}{2}$ -7 | 13 oz. |
| 936 | $\frac{5}{8}$ -18 x $1\frac{1}{4}$ -12 | 7 oz. | 949-A | 1-14 x $1\frac{1}{2}$ -7 | 15 oz. |

No. 919—Adaptor Set. Includes one each 920, 924, 928, 932, 936 and 940. Wt. 2 lbs.

MALE ADAPTORS

A complete range of sizes for use with OTC PUSH-PULLERS in pulling shafts, pinions, and other parts having tapped holes. Also used on PUSH-PULLER legs to pull main bearing caps, cages, etc. Essential parts of the OTC PULLING SYSTEM.

| No. | Male End | Female End | Lgth. | Wt. | No. | Male End | Female End | Lgth. | Wt. |
|------|-------------------|-------------------|------------------|-------|------|---------------------|-------------------|------------------|--------|
| 13-M | $\frac{3}{8}$ -20 | $\frac{5}{8}$ -18 | $2\frac{1}{4}$ " | 5 oz. | 36-M | $1\frac{1}{4}$ -12 | $\frac{5}{8}$ -18 | $2\frac{1}{4}$ " | 8 oz. |
| 14-M | $\frac{3}{8}$ -24 | $\frac{5}{8}$ -18 | $2\frac{1}{4}$ " | 5 oz. | 37-M | $\frac{1}{4}$ -Pipe | $\frac{5}{8}$ -18 | $2\frac{1}{4}$ " | 5 oz. |
| 15-M | $\frac{3}{8}$ -16 | $\frac{5}{8}$ -18 | $2\frac{1}{4}$ " | 5 oz. | 39-M | $\frac{1}{4}$ -Pipe | $\frac{5}{8}$ -18 | $2\frac{1}{4}$ " | 5 oz. |
| 16-M | $\frac{1}{2}$ -20 | $\frac{5}{8}$ -18 | $2\frac{1}{4}$ " | 5 oz. | 41-M | $\frac{1}{2}$ -Pipe | $\frac{5}{8}$ -18 | $2\frac{1}{4}$ " | 5 oz. |
| 17-M | $\frac{1}{2}$ -13 | $\frac{5}{8}$ -18 | $2\frac{1}{4}$ " | 5 oz. | 43-M | $\frac{1}{2}$ -Pipe | $\frac{5}{8}$ -18 | $2\frac{1}{4}$ " | 5 oz. |
| 18-M | $\frac{5}{8}$ -18 | $\frac{5}{8}$ -18 | $2\frac{1}{4}$ " | 5 oz. | 20-P | $\frac{5}{8}$ -11 | 1-14 | $2\frac{1}{4}$ " | 8 oz. |
| 20-M | $\frac{5}{8}$ -11 | $\frac{5}{8}$ -18 | $2\frac{1}{4}$ " | 5 oz. | 24-P | $\frac{3}{4}$ -16 | 1-14 | $2\frac{1}{4}$ " | 10 oz. |
| 24-M | $\frac{3}{4}$ -16 | $\frac{5}{8}$ -18 | $2\frac{1}{4}$ " | 5 oz. | 25-P | $\frac{3}{4}$ -10 | 1-14 | $2\frac{1}{4}$ " | 10 oz. |
| 25-M | $\frac{3}{4}$ -10 | $\frac{5}{8}$ -18 | $2\frac{1}{4}$ " | 5 oz. | 28-P | $\frac{7}{8}$ -14 | 1-14 | $2\frac{1}{4}$ " | 12 oz. |
| 28-M | $\frac{7}{8}$ -14 | $\frac{5}{8}$ -18 | $2\frac{1}{4}$ " | 6 oz. | 29-P | $\frac{7}{8}$ -9 | 1-14 | $2\frac{1}{4}$ " | 12 oz. |
| 32-M | $\frac{7}{8}$ -9 | $\frac{5}{8}$ -18 | $2\frac{1}{4}$ " | 6 oz. | 36-P | 1-12 | 1-14 | $2\frac{1}{4}$ " | 13 oz. |
| 29-M | 1-14 | $\frac{5}{8}$ -18 | $2\frac{1}{4}$ " | 6 oz. | | | | | |

STEP PLATE ADAPTORS

For use with OTC GRIP-O-MATIC and PUSH-PULLERS. When pulling parts from hollow shafts or housings, these Step Plates are placed over the end of the hollow shaft to provide a base against which the puller screw can operate.

| No. | "A" | "B" | Wt. | No. | "A" | "B" | Wt. |
|-------|-----------------|------------------|-------|--------|------------------|------------------|--------------------|
| 630-0 | $\frac{1}{8}$ " | $\frac{5}{8}$ " | 1 oz. | 630-9 | $2\frac{1}{8}$ " | $1\frac{3}{4}$ " | 10 oz. |
| 630-1 | $\frac{1}{8}$ " | $\frac{3}{4}$ " | 1 oz. | 630-10 | $2\frac{1}{8}$ " | $1\frac{1}{2}$ " | 12 oz. |
| 630-2 | $\frac{1}{8}$ " | $\frac{3}{4}$ " | 2 oz. | 630-11 | $2\frac{1}{8}$ " | 2" | $1\frac{1}{4}$ lb. |
| 630-3 | $\frac{1}{8}$ " | 1" | 2 oz. | 630-12 | $2\frac{1}{8}$ " | $2\frac{1}{4}$ " | $1\frac{1}{4}$ lb. |
| 630-4 | $\frac{1}{8}$ " | $1\frac{1}{8}$ " | 3 oz. | 630-13 | $2\frac{1}{8}$ " | $2\frac{1}{2}$ " | $1\frac{1}{4}$ lb. |
| 630-5 | $\frac{1}{8}$ " | $1\frac{1}{4}$ " | 5 oz. | 630-14 | $2\frac{1}{8}$ " | $2\frac{3}{8}$ " | $1\frac{1}{4}$ lb. |
| 630-6 | $\frac{1}{8}$ " | $1\frac{3}{8}$ " | 7 oz. | 630-15 | 3" | $2\frac{1}{2}$ " | $1\frac{1}{4}$ lb. |
| 630-7 | $\frac{1}{8}$ " | $1\frac{1}{2}$ " | 7 oz. | 630-16 | $3\frac{1}{4}$ " | $2\frac{3}{8}$ " | 2 lb. |
| 630-8 | 2" | $1\frac{5}{8}$ " | 9 oz. | 630-17 | $3\frac{1}{2}$ " | 3" | $2\frac{1}{4}$ lb. |

No. 630-R—Set includes 630-5 to 630-16 incl.

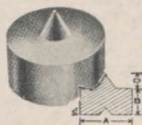
No. 630-S—Set 11 Step Plates include 630-1 to 630-11 incl. Wt. 5 lbs.

No. 630-T—Set 6 Step Plates 630-12 to 630-17 incl. Wt. 10 $\frac{1}{2}$ lbs.

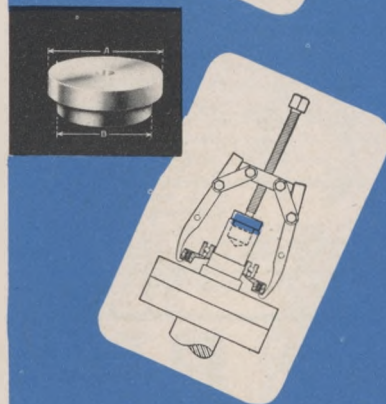
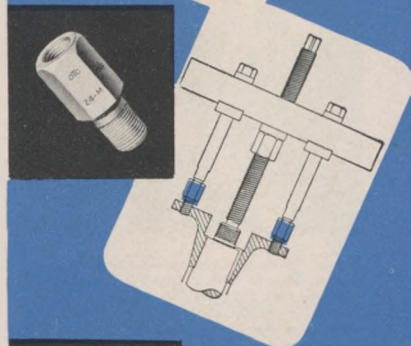
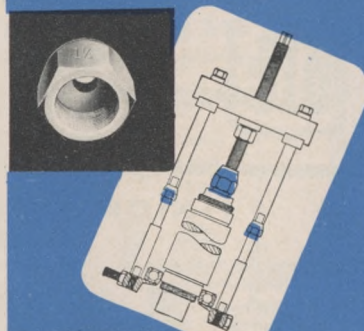
SHAFT PROTECTORS

A range of sizes adequate for use with OTC Grip-O-matic and Push-Pullers is available. These adaptors protect the centers on the end of the shaft when heavy pressure is applied.

No. 625-A—Set of 6 as listed. Wt. 1 lb.



| No. | "A" | "B" | "C" 60° | "D" 60° |
|-------|------------------|-----------------|------------------|------------------|
| 625-1 | $1\frac{1}{8}$ " | $\frac{3}{8}$ " | $\frac{3}{8}$ " | $\frac{7}{16}$ " |
| 625-2 | $1\frac{1}{8}$ " | $\frac{3}{8}$ " | $\frac{3}{8}$ " | $\frac{3}{8}$ " |
| 625-3 | 1" | $\frac{3}{8}$ " | $\frac{3}{8}$ " | $\frac{5}{16}$ " |
| 625-4 | $\frac{3}{4}$ " | $\frac{3}{8}$ " | $\frac{3}{8}$ " | $\frac{1}{4}$ " |
| 625-5 | $\frac{3}{4}$ " | $\frac{5}{8}$ " | $\frac{3}{8}$ " | $\frac{1}{4}$ " |
| 625-6 | $\frac{3}{4}$ " | $\frac{5}{8}$ " | $\frac{5}{16}$ " | $\frac{3}{16}$ " |



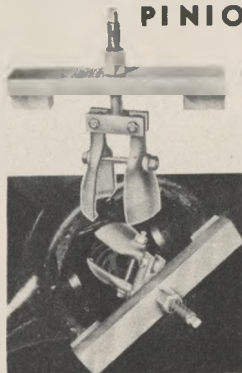


SPECIAL ATTACHMENTS

Additional special attachments for use with OTC PUSH-PULLERS, all a part of the OTC PULLING SYSTEM and other universal pullers are shown on the following three pages. Each tool is an essential one and adaptable to maintenance operations on automobiles, aircraft, tractors, etc.

PINION SHAFT PULLER

NO. 944-A



A complete unit designed and built especially to pull the Chevrolet car and truck and Buick pinion shaft on models where it comes out through the back of the housing.

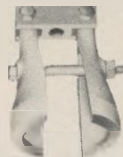
This tool is quickly and easily applied on the job—does this otherwise difficult service operation in a fraction of the time it takes by makeshift methods. This tool is a combination of the 944

Pinion Attachment and the No. 944-B Bridge Assembly. Anyone already having the OTC 944 Attachment need purchase only the 944-B Bridge Assembly.

No. 944-A—Pinion Puller complete. Wt. 9½ lbs.

No. 944-B—Bridge Assembly (only). Wt. 6½ lbs.

PINION SHAFT PULLER ATTACHMENT No. 944

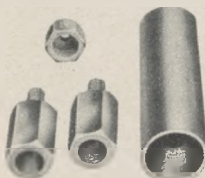


This attachment is used with the No. 927 Push-Puller (Page 8) for removing the stub shaft drive pinions from the rear axle pinion shaft housing on Chevrolet and Buick cars where the shaft comes out through the back of the housing. Thousands of these attachments are in daily use all over the country. It solves one of the most difficult service operations encountered in Chevrolet and Buick service. This attachment is not a complete tool and must be used with the No. 927 Push-Puller.

No. 944—Pinion Shaft Pulling Attachment. Wt. 3 lbs.

FORD PINION SHAFT PULLER SET No. 985-V

For use in pulling and installing Ford car and truck pinion shaft. This set is used with OTC PUSH-PULLER No.



927 and does this difficult job quickly and easily. This set is also used with the No. 927 Push-Puller and 951 Bearing Pulling Attachment to remove and install the pinion bearings.

No. 985-V—Pinion Shaft Pulling Set. Wt. 2¼ lbs.

No. 929-A—Adaptor for '42 to '47, ¾ and 1 ton truck.

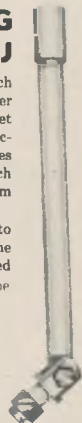
SLEEVE PULLING ATTACHMENT No. 938-J

The attachment consists of an extension which threads on the end of the 938 Push-Puller forcing screw and is used to pull the wet cylinder sleeves or liners found in many tractors. It has a swivel on one end which receives the correct size of adaptor plate and which permits inserting this plate in the liner from above.

A complete range of adaptor plates from 3" to 6" is available and are listed on Page 37. The adaptor plate illustrated below is not included with the attachment and each size must be purchased separately.

No. 938-J—Sleeve Puller Attachment.

Wt. 3¾ lbs.



BUSHING EXTRACTOR ATTACHMENTS

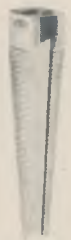
Four sizes of these attachments are available for use with Push-Pullers No. 927, 930 and 938 (see Page 8). These extractors are built to remove bronze bushings which are located in blind holes. The tool is threaded into the bushing and cuts its own thread.

No. 931—Extractor ½" to 1¼". Wt. 1 lb.

No. 933—Extractor 1½" to 1¾". Wt. 1¼ lbs.

No. 935—Extractor 1¾" to 1½". Wt. 2 lbs.

No. 937—Extractor 1½" to 2¾". Wt. 2¼ lbs.



VALVE GUIDE PULLING ATTACHMENT No. 946

A small but extremely useful tool for pulling and replacing Valve Guides. Used as an attachment with the No. 927 Push-Puller (Page 8). Burned valve guides, difficult to remove can be pulled easily with this attachment. An essential tool in every automotive service shop.

No. 946—Attachment. Wt. 4 oz.





SLIDE HAMMER PULLER

NO. 960—Two and Three Way Inside and Outside Combination

A universal tool that is quickly and easily adapted to both outside and inside pulling operations and which can be used either as a two-way or a three-way puller. It is used effectively for pulling gears, bearings, pinions, grease retainers, bearing outer races, oil seals, etc. Capacity with 2 arms: outside max. $4\frac{1}{2}$ " , min. 1" , inside max. $3\frac{3}{8}$ " , min. $1\frac{1}{4}$ " . With 3 arms: outside max. $4\frac{1}{2}$ " min. $1\frac{1}{2}$ " ; inside max. $4\frac{3}{4}$ " , min. $1\frac{5}{16}$ " .

No. 960—Slide Hammer Puller complete. Wt. 8 lbs.

No. 960-1—Set 3 Puller Arms

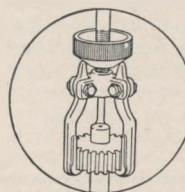
No. 960-2—Two-way Puller Head

No. 960-3—Three-way Puller Head (with Cap Screws)

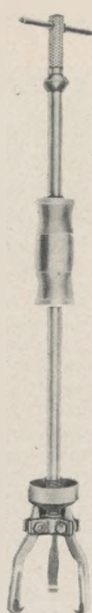
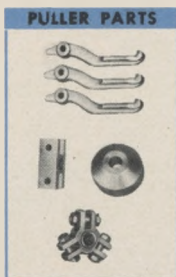
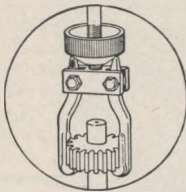
No. 960-4—Adjusting Cone

No. 960-A—Set contains 960-1, 960-2, 960-3, 960-4. Wt. $3\frac{3}{4}$ lbs.

No. 943-S—Slide Hammer Assembly (only). Wt. $4\frac{3}{4}$ lbs.



These two line drawings illustrate the 2 and 3 way outside pulling combinations. For inside pulling operations merely reverse the adjusting cone and puller arms.



PILOT BEARING PULLER

No. 954



A complete unit for removing flywheel pilot bearings on practically all makes and models of automobiles, trucks and tractors. Also for pulling motor, generator and magneto bearings.

No. 954—Puller, capacity $\frac{1}{2}$ " to $1\frac{1}{2}$ " complete... Wt. 4 lbs.

No. 954-B—Puller, capacity $\frac{1}{2}$ " to 2" complete... Wt. $4\frac{1}{2}$ lbs.

No. 954-A—Slide Hammer Assembly (only)... Wt. $2\frac{1}{2}$ lbs.

No. 955—Pilot Brg. Attach. (only) less 954-A. Wt. 1 lb.

No. 956—Pilot Brg. Attach. (only) less 954-A. Wt. $1\frac{1}{4}$ lbs.

No. 954-C—Puller with 955-14 Jaws. Wt. $1\frac{1}{4}$ lbs.

GEAR AND PULLEY PULLER

No. 515



Designed especially for pulling Chevrolet Fan Pulleys, but is a very practical tool for pulling timing gears and other parts as well. The slotted block permits a wide range of adjustments. The screw is long enough to reach through the crank hole so the fan pulley can be pulled without removing the radiator. This tool can also be used with the OTC Pulling Attachment No. 950 as illustrated on page 14.

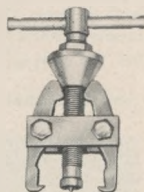
No. 515—Fan Pulley Puller (as shown). Wt. 2 lbs.

No. 515-S—Forcing Screw (only) $12\frac{1}{2}$ " long. Wt. $1\frac{1}{4}$ lb

No. 515-T—Forcing Screw (only) 6" long.

BATTERY TERMINAL PULLER

No. 847



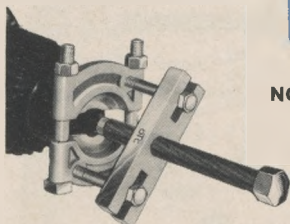
Built especially to pull the battery cable from the battery post, this tool does the job easily and quickly. The sharp jaws of the puller are forced under the cable connection, or into it, if necessary with the hexagon adjusting nut. The cable is then pulled by turning the T handle. Well built for long service.

No. 847—Battery Terminal Puller. Wt. 1 lb.

COMBINATION PULLER



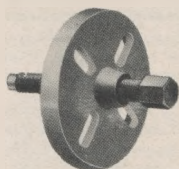
NO. 980



This unit is a combination of two popular OTC tools—No. 515 Gear and Pulley Puller page 13 and the No. 950 Bearing Pulling Attachment page 7. It is especially practical in electrical shops for pulling gears, bearings, races, etc. on magnetos, generators and small motors. It has a capacity from 0" to 2 1/4" OD and will pull gears or bearings within that range. Both of these tools are included in the PA-19 Automotive Service Set listed on the opposite page.

No. 980—Combination Puller. Wt. 3 3/4 lbs.

FLANGE AND PULLEY PULLER NO. 917



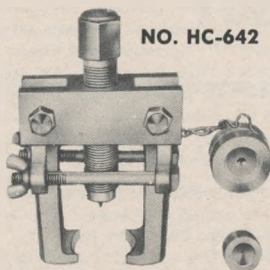
A special universal puller designed to pull flanges and pulleys in a variety

of sizes. The slotted holes permit adjustments from 1 1/2" to 2 1/2". Two sizes, 1/4" or 3/16" and different lengths of cap screws can be used to increase its range of utility. Cap screws are not furnished with the tool. This tool can also be used to pull steering wheels on many late model cars.

No. 917—Flange Puller. Wt. 1 lb.

TRUCK PITMAN ARM and FORD HUB PULLER

NO. HC-642



A well built, rugged, dual purpose tool that makes a simple job out of pulling truck Pitman arms and does this job on practically all makes and models of trucks. Can also be utilized effectively as a Ford Hub Puller and does this job equally well. Two Shaft Protectors are supplied with the tool and should be used in every operation.

No. HC-642—Pitman Arm and Hub Puller. Wt. 4 3/4 lbs.

PILOT BEARING PULLER No. MD-956

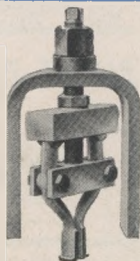
Built especially to pull the flywheel pilot bearings on trucks and tractors in close quarters where obstructions do not permit the use of a Slide Hammer or other tool. This tool will operate on many models where the engine is in the chassis.

Service men already having the OTC Pilot Bearing Puller No. 955 need only purchase the Bridge Assembly to complete this tool.

No. MD-955—Puller, cap. 1/2" to 1 1/2". Wt. 3 lbs.

No. MD-956—Puller, cap. 1 1/2" to 2". Wt. 3 lbs.

No. 956-B—Bridge Assembly (only). Wt. 2 lbs.



STEERING WHEEL PULLER NO. 853-A

The OTC Steering Wheel Puller is a universal tool that will pull a majority of the steering wheels on practically all makes and models of automobiles. It works also on some trucks and tractors. Having three adjustable legs it will pull steering wheels regardless of the number of spokes.

The steel ring against which the tool pulls is equipped with rubber cushions to prevent marring the wheel.

No. 853 —Steering Wheel Puller, as illustrated. Wt. 2 3/4 lbs.

No. 853-B—Steering Post Nipple for Buick. Wt. 1 oz.

No. 853-L—Large Puller Ring for Chrysler and General Motors cars. Wt. 3/4 lb.

No. 853-A—Steering Wheel Puller, complete. Wt. 3 1/2 lbs.





AUTOMOTIVE SERVICE SET No. PA-19

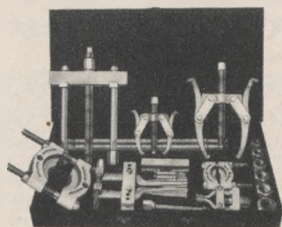
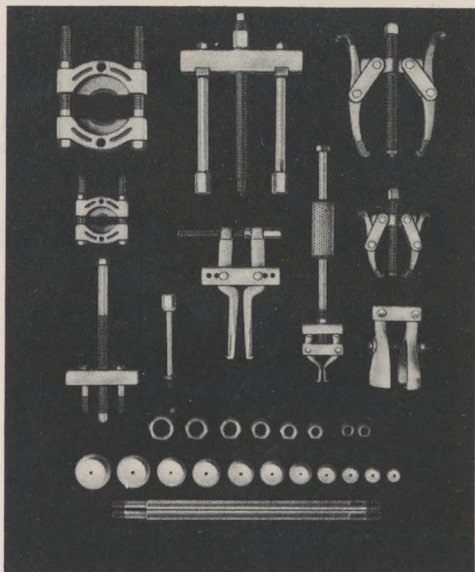
SERVICE SHOP PULLER SET

The most universal and complete automotive puller set on the market today. It combines all the power units necessary together with the special attachments and adaptors needed to pull and install gears, bearings, shafts, pinions, bearing outer races and other close fitting parts.

Each pulling unit is adjustable to cover a wide range of sizes which makes this set universal on all makes and models of automobiles and light trucks. This set eliminates the need for special pullers for each separate pulling operation and will reduce the investment in shop equipment. It will not become obsolete with annual model changes and will give years of satisfactory service.

Recommended by all the leading bearing manufacturers.

The set pictured at the right contains all the items listed right below and can be purchased with an attractive service board which provides a place for every tool in the set.

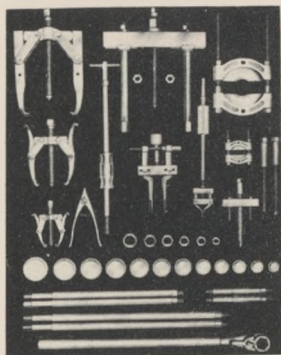


PA-19 SERVICE SET IN METAL CASE

To keep the component parts of the PA-19 Set intact and to prevent loss of individual parts the set may be purchased in a metal case $22\frac{1}{2}$ " x 12" x $2\frac{1}{2}$ ", as illustrated above. It is recommended that either the metal box or a service board be purchased with this set for convenience in storing the tools.

No. PA-19R—No. PA-19 Set in Metal Case. Wt. 51 lbs.
No. PA-9—Metal Case (only).
Wt. 12 lbs.

| Tool No. | Description |
|----------|---|
| 950 | Bearing Pulling Attachment |
| 951 | Bearing Pulling Attachment |
| 927 | Push-Puller with 927-A $6\frac{3}{4}$ " legs |
| 927-B | Push-Puller Legs $15\frac{3}{4}$ " (pair) |
| 1002 | Grip-o-matic Puller |
| 1001 | Grip-o-matic Puller |
| 943 | Bearing Cup Pulling Attachment (Less 943-10 Adaptor) |
| 954 | Pilot Bearing Puller |
| 946 | Valve Guide Pulling Attachment |
| 944 | Pinion Pulling Attachment |
| 515 | Gear and Pulley Puller |
| 630-S | Set Step Plate Adaptors, 630-1 to 630-11 |
| 916 | Leg Connectors (pair) |
| 920 | Adaptor $\frac{5}{8}$ "-18 x $\frac{5}{8}$ "-18 female |
| 924 | Adaptor $\frac{3}{4}$ "-18 x $\frac{3}{4}$ "-16 female |
| 928 | Adaptor $\frac{5}{8}$ "-18 x $\frac{7}{8}$ "-14 female |
| 932 | Adaptor $\frac{5}{8}$ "-18 x 1"-14 female |
| 936 | Adaptor $\frac{5}{8}$ "-18 x $1\frac{1}{8}$ "-12 female |
| 940 | Adaptor $\frac{5}{8}$ "-18 x $1\frac{1}{4}$ "-12 female |
| PA-19B | Service Board (only) 3' x 4'. Wt. 19 lbs. |
| PA-19 | Automotive Service Set, tools only. Wt. 44 lbs. |
| PA-19R | Automotive Set in Metal Case, PA-9. Wt. 51 lbs. |



UNIVERSAL TRUCK MAINTENANCE SET No. T-50

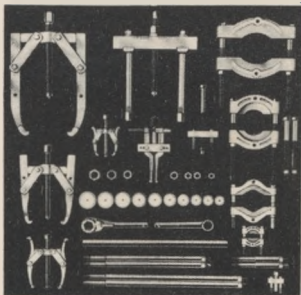
A complete puller set designed especially for the truck maintenance trade which will handle 95% of the operations involving the removal and installation of gears, bearings, pinions, pulleys, shafts, bushings, grease retainers, oil seals, etc., on all makes and models of trucks.

This set is now being used extensively by fleet owners operating Dodge, White, Reo, Studebaker, Federal, GMC, Diamond T, Chevrolet, Ford and other makes of trucks. It eliminates the necessity for special pullers which operate on only one job and will reduce tool investment by one-half.

OTC pullers will not become obsolete with each model change. They are approved and recommended by the Anti-Friction Bearing Manufacturers Association.

| Tool No. | Description |
|----------|---|
| 1003 | Grip-o-matic Puller |
| 1002 | Grip-o-matic Puller |
| 1001 | Grip-o-matic Puller |
| 938 | Push-Puller with 930-D 9 1/2" legs |
| 930-B | Legs for 938 Push-Puller 16 1/2" (pair) |
| 930-C | Legs for 938 Push-Puller 22 1/2" (pair) |
| 930-E | Legs for 938 Push-Puller 4 1/2" (pair) |
| 952-A | Bearing Pulling Attachment |
| 952-3 | Short Bolts for 952-A Attachment |
| 950 | Bearing Pulling Attachment |
| 943 | Bearing Cup Pulling Attachment |
| 943-S | Slide Hammer Assembly (only) |
| 954-B | Pilot Bearing Puller |
| 515 | Gear and Pulley Puller |

| Tool No. | Description |
|----------|--|
| 614 | Snap Ring Plier |
| 920 | Threaded Adaptor 3/8" x 3/8" |
| 924 | Threaded Adaptor 3/8" x 3/4" (pair) |
| 928 | Threaded Adaptor 3/8" x 7/8" |
| 932 | Threaded Adaptor 3/8" x 1" |
| 936 | Threaded Adaptor 3/8" x 1 1/8" |
| 940 | Threaded Adaptor 3/8" x 1 1/4" |
| 948 | Threaded Adaptor 3/8" x 1 1/2" |
| 630-R | Step Plate Set 630-5 to 630-16 inclusive |
| P-61 | Push-Puller Ratchet |
| M-28 | Tubular Handle for P-61 |
| T-50 | Universal Truck Service Set (tools only). Wt. 116 lbs. |
| T-51 | Service Board, 3' x 4'. Wt. 26 lbs. |



INTERNATIONAL TRUCK SERVICE TOOL SET No. IHC-37

FACTORY APPROVED

The set illustrated at the left constitutes a complete set of pullers for International Trucks. The tools comprising this set were selected for their universal adaptability and versatility. They will handle a majority of the service jobs on International Trucks involving the removing and replacing of bearings, gears, shafts, pulleys, sheaves, pinions and other close fitting parts. In addition, they will do these same jobs on practically any other make of truck which may be taken in on trade.

The tools in this set were tested and selected with the cooperation of International Harvester Co. engineers. For complete details and action photos see International Truck Manual No. 3-A.

| Tool No. | Description |
|-----------|---|
| *1001 | Grip-o-matic Puller |
| *1002 | Grip-o-matic Puller |
| 1003 | Grip-o-matic Puller |
| *1003 1/2 | Grip-o-matic Puller |
| 938 | Push-Puller with 930-D 9 1/2" legs |
| 930-B | Legs for Push-Puller 16 1/2" (pair) |
| 930-C | Legs for Push-Puller 22 1/2" (pair) |
| 930-D | Legs for Push-Puller 4 1/2" (pair) |
| 952-A | Bearing Pulling Attachment |
| 952-3 | Extra Bolts for 952-A (pair) |
| 950 | Bearing Pulling Attachment |
| 943 | Bearing Cup Pulling Attachment |
| 940 | Threaded Adaptor 1 1/4"-12 x 5/8"-18 |
| 936 | Threaded Adaptor 1 1/4"-12 x 3/8"-18 |
| 932 | Threaded Adaptor 1"-14 x 5/8"-18 |
| 928 | Threaded Adaptor 3/8"-14 x 5/8"-18 |
| 924 | Threaded Adaptor 3/8"-16 x 5/8"-18 (pair) |
| *920 | Threaded Adaptor 3/8"-18 x 5/8"-18 |
| *680 | Sheave Pulling Attachment |

| Tool No. | Description |
|----------|--|
| *679 | Sheave Pulling Attachment |
| *630-5 | Step Plate Adaptor 1 3/8" x 1 1/4" |
| *630-6 | Step Plate Adaptor 1 3/8" x 1 3/8" |
| *630-7 | Step Plate Adaptor 1 3/8" x 1 1/2" |
| *630-8 | Step Plate Adaptor 2" x 1 5/8" |
| *630-9 | Step Plate Adaptor 2 1/8" x 1 3/4" |
| *630-10 | Step Plate Adaptor 2 3/8" x 1 7/8" |
| *630-11 | Step Plate Adaptor 2 1/2" x 2" |
| *630-12 | Step Plate Adaptor 2 3/4" x 2 1/4" |
| *630-13 | Step Plate Adaptor 2 3/4" x 2 1/2" |
| *630-14 | Step Plate Adaptor 2 3/4" x 2 3/4" |
| *615 | Cross Bar Puller |
| *P-61 | Reversible Push-Puller Ratchet |
| *M-28 | Tubular Handle 24" long |
| *MA-40 | Heavy Duty Box Wrench 1 1/4" |
| *HC-628 | Pump Hub Puller |
| IHC-36 | Service Board (only), 4' x 4' |
| IHC-37 | International Truck Set (Tools only). Wt. 153 lbs. |

*Included in Special Set No. IHC-30. See page 25.

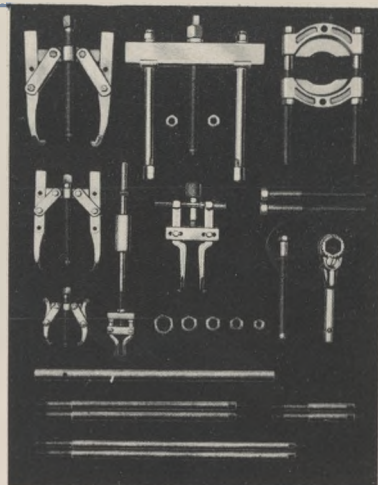


MACK TRUCK SERVICE TOOL SET No. MC-20

FACTORY APPROVED

Designed especially for service operation on Mack Trucks this set combines the essential tools required to remove and install bearings, gears, outer bearing races, pinions, etc., at a substantial saving of time and effort and without damage to costly parts. The component parts of this set are adjustable and adaptable to a great many different jobs and will work equally well on other makes and models of trucks. They will not become obsolete with each model change and thus eliminate the need for many special tools that can be used only on one operation.

| Tool No. | Description |
|----------|---|
| 1003 | Grip-o-matic Puller |
| 1002-L | Grip-o-matic Puller |
| 1001 | Grip-o-matic Puller |
| 938 | Push-Puller with 930-D, 9 1/4" legs" |
| 930-B | Legs for 938 Push-Puller, 16 1/2" (pair) |
| 930-C | Legs for 938 Push-Puller, 22 1/2" (pair) |
| 930-E | Legs for 938 Push-Puller, 4 1/2" (pair) |
| 962-A | Bearing Pulling Attachment |
| 962-3 | Short Bolts for 962-A (pair) |
| 943 | Bearing Cup Pulling Attachment |
| 964 | Pilot Bearing Puller |
| 515-S | Forcing Screw for use with 943 |
| 920 | Adaptor 5/8"-18 x 3/4"-18 female |
| 924 | Adaptor 5/8"-18 x 1 1/4"-16 female (pair) |
| 928 | Adaptor 5/8"-18 x 1 1/4"-14 female |
| 932 | Adaptor 5/8"-18 x 1"-14 female |
| 936 | Adaptor 5/8"-18 x 1 1/2"-12 female |



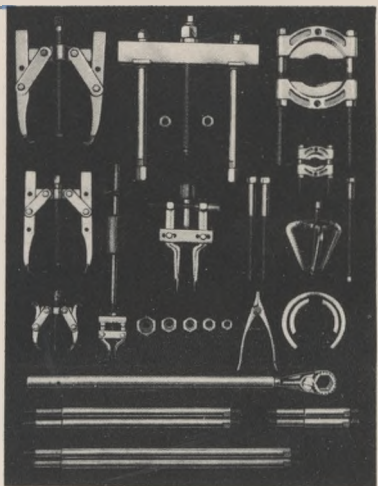
| Tool No. | Description |
|----------|---|
| 948 | Adaptor 5/8"-18 x 1 1/4"-12 female |
| P-61 | Reversible Push-Puller Ratchet |
| M-28 | Tubular Handle for P-61 |
| MC-20 | Mack Truck Set (Tools only) Wt. 95 lbs. |
| MC-21 | Mack Truck Service Board (only) Wt. 32 lbs. |

AUTOCAR SERVICE TOOL SET No. AT-23

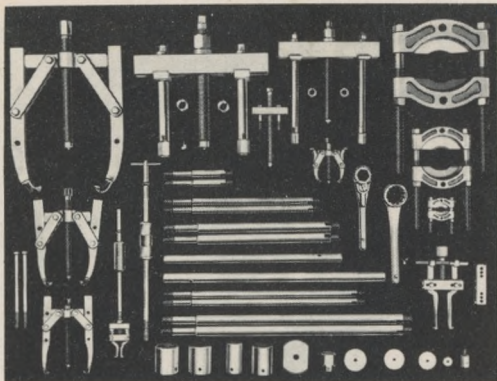
FACTORY APPROVED

A specialized service tool set developed particularly for Autocar Trucks consists of a combination of tools for removing and installing tight fitting parts such as bearings, outer bearing races, bushings, gears, shafts, etc., quickly and without damage to expensive parts. The basic pulling tools are adjustable to cover a wide range of sizes and consequently eliminate the need for a large number of special tools. Additional sizes of pullers, attachments and adaptors may be added to this set to increase its range for use on other makes and models of trucks also.

| Tool No. | Description |
|----------|---|
| 1003 | Grip-o-matic Puller |
| 1002-L | Grip-o-matic Puller |
| 1001 | Grip-o-matic Puller |
| 938 | Push-Puller with 930-D, 9 1/4" legs |
| 930-B | Legs for 938 Push-Puller, 16 1/2" (pair) |
| 930-C | Legs for 938 Push-Puller, 22 1/2" (pair) |
| 930-E | Legs for 938 Push-Puller, 4 1/2" (pair) |
| 962-A | Bearing Pulling Attachment |
| 960 | Bearing Pulling Attachment |
| 964-B | Pilot Bearing Puller |
| 962-3 | Short Bolts for 962-A (pair) |
| 943 | Bearing Cup Pulling Attachment |
| 515-S | Forcing Screw for use with 943 |
| 863-A | Steering Wheel Puller |
| 614 | Snap Ring Pliers |
| P-61 | Reversible Push-Puller Ratchet |
| M-28 | Tubular Handle for P-61 |
| 920 | Adaptor 5/8"-18 x 3/4"-18 female |
| 924 | Adaptor 5/8"-18 x 1 1/4"-16 female (pair) |



| Tool No. | Description |
|----------|---|
| 928 | Adaptor 5/8"-18 x 3/4"-14 female |
| 932 | Adaptor 5/8"-18 x 1"-14 female |
| 936 | Adaptor 5/8"-18 x 1 1/4"-12 female |
| 948 | Adaptor 5/8"-18 x 1 1/2"-12 female |
| AT-23 | Autocar Service Set (Tools only) Wt. 103 lbs. |
| AT-24 | Autocar Service Board (only) Wt. 32 lbs. |



FWD ESSENTIAL SERVICE SET

No. FWD-40

FACTORY APPROVED

Developed in cooperation with Four Wheel Drive service engineers this set is recommended to all FWD dealers, distributors and users for service on these trucks. This set contains the essential tools needed for service operations involving the removal and installation of gears, bearings, wheels, skeins, shafts, collars, bearing outer races, etc., and will do these jobs without damage and at a substantial saving in time and labor. They will work equally well on other makes and models of trucks and will not become obsolete with each model change.

For more complete details see Bulletin No. FWD-49.

The FWD-40 Set contains the following tools:

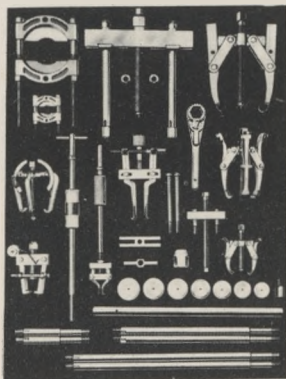
| Tool No. | Description |
|----------|--|
| *1004 | Grip-o-matic Puller |
| 1003 | Grip-o-matic Puller |
| *1002-L | Grip-o-matic Puller |
| *1001 | Grip-o-matic Puller |
| *939 | Push-Puller with 939-A, 8" legs |
| *939-B | Legs for 939 Push-Puller, 18" (pair) |
| *939-C | Legs for 939 Push-Puller, 28" (pair) |
| 938 | Push-Puller with 930-D, 9 1/2" legs |
| 930-B | Legs for 938 Push-Puller, 16 1/2" (pair) |
| 930-C | Legs for 938 Push-Puller, 22 1/2" (pair) |
| 930-E | Legs for 938 Push-Puller, 4 1/2" (pair) |
| *953 | Bearing Pulling Attachment |
| 952-A | Bearing Pulling Attachment |
| *950 | Bearing Pulling Attachment |
| 943 | Bearing Cup Pulling Attachment |
| *943-2 | Bearing Cup Attach. Cross Block (only) |
| *943-S | Slide Hammer Assembly (only) |
| 924 | Pilot Bearing Puller |
| *932-B | Adaptor 3/4"-18 x 3/4"-16 female (pair) |
| | Adaptor 1"-14 x 1"-14 female (pair) |

Tool No.

| | |
|---------|--|
| *940-B | Adaptor 1"-14 x 1 1/4"-18 female |
| *948-A | Adaptor 1"-14 x 1 1/4"-12 female |
| *515 | Gear and Pulley Puller |
| *630-15 | Step Plate 3" x 2 1/2" |
| *630-13 | Step Plate 2 3/4" x 2 1/4" |
| *630-10 | Step Plate 2 1/2" x 1 3/4" |
| *630-1 | Step Plate 1" x 3/4" |
| *16-M | Adaptor 1/2" male x 3/4" female |
| *P-61 | Reversible Push-Puller Ratchet |
| *MA-72 | Heavy Duty Box Wrench 2 1/4" |
| *M-28 | Tubular Handle for P-61 |
| *M-32 | Tubular Handle for MA-72 |
| *FWD-55 | Special Cap Screws for "U" Sprocket |
| *FWD-60 | Adaptor for pulling "SU" Skein |
| *FWD-61 | Adaptor for pulling "H" Series Skein |
| *FWD-62 | Adaptor for pulling "HRT" Skein |
| *FWD-63 | Adaptor for pulling "ZU" and "YU" Skein |
| *FWD-72 | Adaptor for pulling "SU" Diff. Bearing Race |
| FWD-40 | FWD Service Set (Tools only) Wt. 300 lbs. |
| FWD-42 | FWD Service Board (only) 6' x 4' Wt. 75 lbs. |

*Included in Special Set No. FWD-29. See page 25.

*Included in Special Set No. FWD-29. See page 25.



DIAMOND T ESSENTIAL SERVICE SET

No. DT-30

FACTORY APPROVED

Service operations on Diamond T trucks can now be accomplished in a fraction of the time formerly required because of the development of a specialized set of tools for this purpose. The set has been developed with the cooperation and assistance of Diamond T service engineers and will handle practically all of the service jobs involving the removal and installation of gears, bearings, bearing outer races, shafts, pinions, etc. Being universal and extremely versatile these tools can also be used just as effectively on other makes and models of trucks as well.

Tool No.

| | |
|---------|--|
| 943 | Bearing Cup Pulling Attachment |
| *943-2 | Bearing Cup Attach. Cross Block (only) |
| *943-S | Slide Hammer Assembly (only) |
| *954 | Pilot Bearing Puller |
| *515 | Gear and Pulley Puller |
| *515-DT | Special Cap Screws 3/4"-USS x 6" |
| *853 | Steering Wheel Puller |
| *HC-642 | Fitman Arm Puller |
| *940-B | Adaptor 1"-14 x 1 1/4"-18 female |
| 924 | Adaptor 3/4"-18 x 3/4"-16 female (pair) |
| *14-M | Adaptor 3/4" male x 3/4" female |
| *630-8 | Step Plate 2" x 1 3/4" |
| *630-9 | Step Plate 2 1/4" x 1 3/4" |
| *630-10 | Step Plate 2 3/4" x 1 3/4" |
| *630-11 | Step Plate 2 1/2" x 2" |
| *630-12 | Step Plate 2 3/4" x 2 1/4" |
| *630-13 | Step Plate 2 3/4" x 2 1/4" |
| *630-14 | Step Plate 2 1/2" x 2 1/4" |
| *P-61 | Reversible Push-Puller Ratchet |
| *M-28 | Tubular Handle for P-61 |
| DT-30 | Diamond T Service Set (Tools only) Wt. 118 lbs. |
| DT-32 | Diamond T Service Board (only) 8' x 4' Wt. 32 lbs. |

*Included in Special Set No. DT-22. See page 25.

*Included in Special Set No. DT-22. See page 25.

Tool No. Description

| | |
|---------|--|
| *1001 | Grip-o-matic Puller |
| *1012 | 3-Way Grip-o-matic Puller |
| *1002-2 | 2-Way Head for 1012 Puller |
| 1003 | Grip-o-matic Puller |
| 938 | Push-Puller with 930-D, 9 1/2" legs |
| 930-B | Legs for 938 Push-Puller, 16 1/2" (pair) |
| 930-C | Legs for 938 Push-Puller, 22 1/2" (pair) |
| 930-E | Legs for 938 Push-Puller, 4 1/2" (pair) |
| *950 | Bearing Pulling Attachment |
| 952-A | Bearing Pulling Attachment |

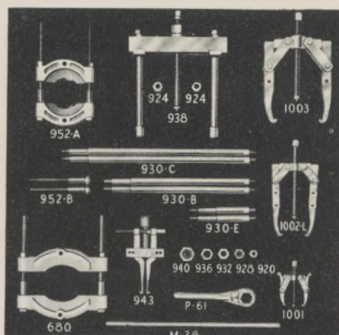


REFRIGERATION SERVICE SET No. PR-20

A complete set of pullers that will solve most of the maintenance problems of the refrigeration engineer and service man.

Ideal for servicing commercial refrigeration units, ice plants and air conditioning equipment this set will remove and replace bearings, fans, impellers, sheaves and other parts that are difficult to remove. No other set offered the refrigeration trade can compare with the versatility of this combination.

It comprises six OTC basic Pulling Tools, which, with the addition of the Sheave Pulling Attachment and Threaded Adaptors, provide a range of adjustments that will meet every requirement. A reversible Ratchet is furnished in the set to speed up pulling jobs involving the Push-Pullers. For typical examples of pulling operations see pages 6 and 10. A service board 4' x 4', substantially built and designed as a permanent place to keep these tools is optional. It is built of $\frac{3}{4}$ " plywood, with a heavy molding and steel brackets to receive each individual tool.



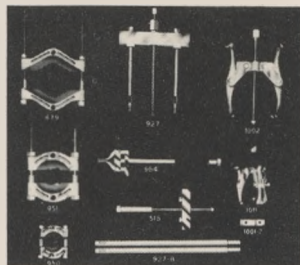
| Tool No. | Description |
|----------|---|
| 952-A | Bearing Pulling Attachment |
| 952-B | Forcing Bolts for 952-A Attachment |
| 680 | Sheave Pulling Attachment |
| 938 | Push-Puller with 930-D 9 $\frac{1}{2}$ " legs |
| 930-B | Push-Puller Legs 16 $\frac{1}{2}$ " (pair) |
| 930-C | Push-Puller Legs 22 $\frac{1}{2}$ " (pair) |
| 930-E | Push-Puller Legs 4 $\frac{1}{2}$ " (pair) |
| 1003 | Grip-o-matic Puller |
| 1002-L | Grip-o-matic Puller |
| 1001 | Grip-o-matic Puller |
| 943 | Bearing Cup Pulling Attachment |

| Tool No. | Description |
|----------|--|
| P-61 | Reversible Ratchet for Push-Puller |
| M-28 | Tubular Handle for P-61 Ratchet |
| 920 | Threaded Adaptor $\frac{3}{4}$ "-18 x $\frac{5}{8}$ "-18 female |
| 924 | Threaded Adaptor $\frac{3}{4}$ "-16 x $\frac{5}{8}$ "-18 female (pair) |
| 928 | Threaded Adaptor $\frac{3}{4}$ "-14 x $\frac{5}{8}$ "-18 female |
| 932 | Threaded Adaptor 1"-14 x $\frac{5}{8}$ "-18 female |
| 936 | Threaded Adaptor 1 $\frac{1}{4}$ "-12 x $\frac{5}{8}$ "-18 female |
| 940 | Threaded Adaptor 1 $\frac{1}{4}$ "-12 x $\frac{5}{8}$ "-18 female |
| PR-19 | Refrigeration Service Board (only). Wt. 31 lbs. |
| PR-20 | Refrigeration Service Set, Tools only. Wt. 112 lbs. |

REFRIGERATION SERVICE SET No. PR-11

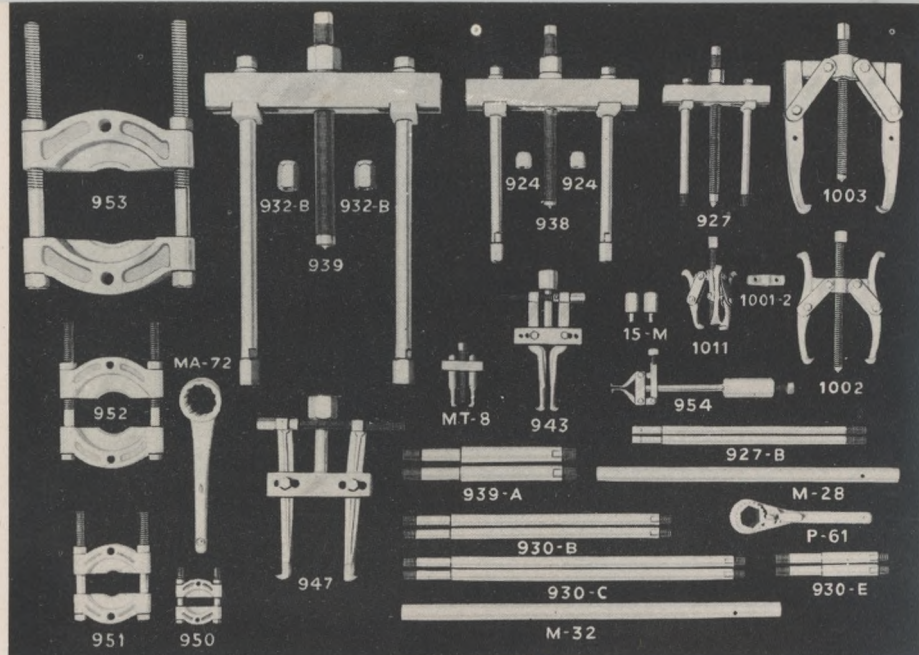
Developed especially for the service and maintenance of small refrigeration units this set is complete and has the capacity necessary to handle all the pulling operations found on this equipment, such as the removal and replacement of gears, bearings, fans, etc. Especially assembled to meet the requirements of the refrigeration maintenance man, but equally efficient on air-conditioning units. The scope and range of this set can easily be expanded by the addition of larger tools listed and illustrated on preceding pages.

The Service Board, 3' x 3', is built of $\frac{3}{4}$ " plywood with a heavy molding and finished in attractive blue lacquer. The steel brackets are substantially built to provide a permanent place to keep these tools. The set can be purchased with or without the board as desired. It is recommended that the board be bought with the set to furnish a practical place to keep the tools and to reduce the danger of losing parts.



| Tool No. | Description |
|----------|--|
| 679 | Sheave Pulling Attachment |
| 951 | Bearing Pulling Attachment |
| 950 | Bearing Pulling Attachment |
| 927 | Push-Puller with No. 927-A 6 $\frac{3}{4}$ " legs |
| 927-B | Legs for 927 Push-Puller 15 $\frac{3}{4}$ " (pair) |
| 1002 | Grip-o-matic Puller |

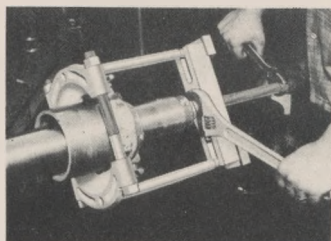
| Tool No. | Description |
|----------|--|
| 1011 | Grip-o-matic Puller (3 Arm) |
| 1001-2 | Two-way Head for 1011 Grip-o-matic Puller |
| 954 | Bearing Puller |
| 515 | Special Puller |
| PR-10 | Service Board (only) 3' x 3'. Wt. 18 lbs. |
| PR-11 | Refrigeration Set, Tools only. Wt. 41 lbs. |



INDUSTRIAL and AVIATION SERVICE SET No. AS-27

The most complete aircraft maintenance set yet developed for this highly specialized field. Suitable both for shop and field service this set will handle a majority of the jobs involving the removing and replacing of gears, bearings, sleeves, impellers, collars and rings, etc., on all types and makes of aircraft from the smallest to the largest. It will do many difficult jobs on the air frame as well as on the engine and will save enough time on a few jobs to pay for itself many times over. In addition to savings in time and labor it will remove and replace parts without damage, thus saving expensive parts that might not be readily available. The many combinations possible with these tools make them the most universal and versatile available anywhere.

The illustration below shows one of the many typical operations possible with these tools. In this case the 938 Push-Puller is used with the 952 Attachment to remove a hydraulic wing jack collar.



| Tool No. | Description |
|----------|---|
| 1003 | Grip-o-matic Puller |
| 1002 | Grip-o-matic Puller |
| 1011 | Grip-o-matic Puller, Triple-grip |
| 1001-2 | Two-way Forged Head for 1011 |
| 939 | Push-Puller with 939-A, 8" legs |
| 939-B | Legs for 939 Push-Puller 18" (pair) |
| 938 | Push-Puller with 930-D, 9 1/4" legs |
| 930-B | Legs for 938 Push-Puller 16 1/2" (pair) |
| 930-C | Legs for 938 Push-Puller 22 1/2" (pair) |
| 930-E | Legs for 938 Push-Puller 4 1/2" (pair) |
| 927 | Push-Puller with 927-A 6 3/4" legs |
| 927-B | Legs for 927 Push-Puller 15 3/4" (pair) |
| 953 | Bearing Pulling Attachment |
| 952 | Bearing Pulling Attachment |
| 951 | Bearing Pulling Attachment |

| Tool No. | Description |
|----------|---|
| 950 | Bearing Pulling Attachment |
| 947 | Bearing Cup Pulling Attachment |
| 943 | Bearing Cup Pulling Attachment |
| 954 | Pilot Bearing Puller |
| MT-8 | Special Puller |
| 932-B | Threaded Adaptors 1"-14 x 1"-14 female (pair) |
| 924 | Threaded Adaptors 3/4"-18 x 3/4"-16 female (pair) |
| 15-M | Adaptors 3/4"-18 female x 3/4"-16 male (pair) |
| P-61 | Reversible Push-Puller Ratchet for No. 938 |
| MA-72 | Heavy Duty Box Wrench 2 1/4" |
| M-28 | Tubular Handle for P-61 Ratchet |
| M-32 | Tubular Handle for MA-72 Box Wrench |
| AS-26 | Service Board (only) 6' x 4'. Wt. 85 lbs. |
| AS-27 | Aviation Service Set, Tools only. Wt. 236 lbs. |



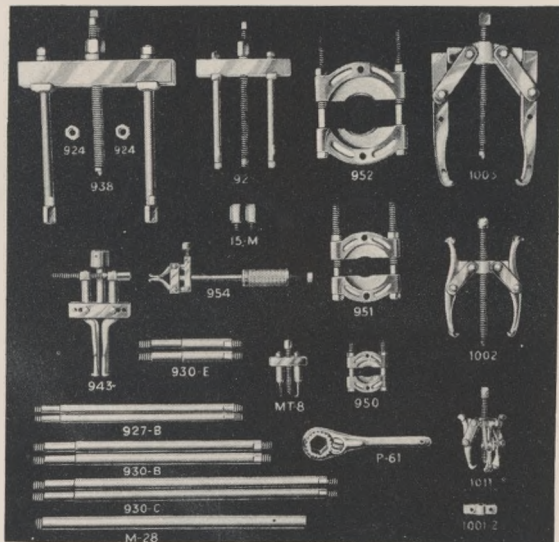
AVIATION SERVICE SET No. AS-21

Developed for use on lighter aircraft, ideal for the average airport service shop this set will handle a majority of the maintenance operations involving the removal

and replacement of bearings, gears, sleeves, collars, bearing races, etc. It will do many difficult jobs on landing gear and air frame as well as on the engines, and covers a range that adapts it to practically every make of aircraft.

All the basic tools in this set are adjustable as to size and range which makes them exceptionally versatile and universal in their application. This permits savings in time and labor and reduces the danger of ruining expensive bearings and other parts that are difficult to obtain.

Aircraft service men who know, recommend these tools with enthusiasm. Every tool is built of high alloy steel and heat-treated throughout for strength and long life.



| Tool No. | Description | Tool No. | Description |
|----------|---|----------|---|
| 1003 | Grip-o-matic Puller | 951 | Bearing Pulling Attachment |
| 1002 | Grip-o-matic Puller | 950 | Bearing Pulling Attachment |
| 1011 | Grip-o-matic Puller, Triple Grip | 954 | Pilot Bearing Puller |
| 1001-2 | Two-way Forged Head for 1011 | 943 | Bearing Cup Pulling Attachment |
| 938 | Push-Puller with 930-D 9 1/2" legs | MT-8 | Special Puller |
| 930-B | Legs for 938 Push-Puller 16 1/2" (pair) | 924 | Threaded Adaptors 5/8"-18 x 3 1/2"-16 female (pair) |
| 930-C | Legs for 938 Push-Puller 22 1/2" (pair) | 15-M | Adaptors 5/8"-18 female x 3/8"-16 male (pair) |
| 930-E | Legs for 938 Push-Puller 4 1/2" (pair) | P-61 | Reversible Push-Puller Ratchet for 938 |
| 927 | Push-Puller with 927-A 6 3/4" legs | M-28 | Tubular Handle for P-61 Ratchet |
| 927-B | Legs for 927 Push-Puller 15 3/4" (pair) | AS-20 | Service Board (only) 4' x 4'. Wt. 60 lbs. |
| 952 | Bearing Pulling Attachment | AS-21 | Aviation Service Set, Tools only. Wt. 76 lbs. |

The illustration at the right shows the No. 938 Push-Puller used in combination with the 952 Bearing Pulling Attachment pulling a propeller hub. This is often a very difficult job, but typically easy with the OTC PULLING SYSTEM. Many other service jobs equally as difficult can be accomplished at a great saving of time and labor.

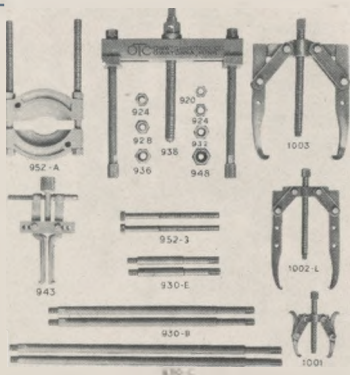




GENERAL SERVICE SET No. PE-12

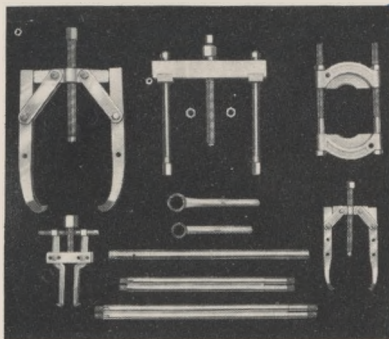
A versatile set which was developed to provide the widest range of utility on the largest possible number of makes and models of tractors, power shovels, drag lines, road machinery, motors, trucks and all kinds of power equipment. This set will handle 90% of the jobs involving the removal and replacement of bearings, gears, pulleys, shafts, pinions, wheels and other closely fitted parts without damage to those parts and at a substantial saving in time and labor.

This set can be expanded in range by the addition of larger pullers listed and illustrated on preceding pages. These tools are guaranteed against obsolescence and will give years of satisfactory, uninterrupted service.



| Tool No. | Description |
|----------|---|
| 1003 | Grip-o-matic Puller |
| 1002-L | Grip-o-matic Puller |
| 1001 | Grip-o-matic Puller |
| 938 | Push-Puller with 930-D, 9 1/2" legs |
| 930-B | Legs for 938 Push-Puller 16 1/2" (pair) |
| 930-C | Legs for 938 Push-Puller 22 1/2" (pair) |
| 930-E | Legs for 938 Push-Puller 4 1/2" (pair) |
| 952-A | Bearing Pulling Attachment |
| 952-3 | Extra Short Bolts for 952-A |

| Tool No. | Description |
|----------|--|
| 943 | Bearing Cup Pulling Attachment |
| 920 | Threaded Adaptor 3/4"-18 x 3/4"-18 female |
| 924 | Threaded Adaptor 3/4"-16 x 3/4"-18 female (pair) |
| 928 | Threaded Adaptor 1/4"-14 x 3/4"-18 female |
| 932 | Threaded Adaptor 1"-14 x 3/4"-18 female |
| 936 | Threaded Adaptor 1 1/2"-12 x 3/4"-18 female |
| 948 | Threaded Adaptor 1 1/2"-12 x 3/4"-18 female |
| PE-11 | Service Board (only) 3' x 4'. Wt. 30 lbs. |
| PE-12 | General Service Set, Tools only. Wt. 83 lbs. |



INDUSTRIAL MAINTENANCE SET No. PE-15

This industrial maintenance set is designed particularly for service on large track-type tractors, power shovels, pumps, diesel engines and other heavy machines and machine tools. It will accomplish 90% of the jobs involving the removal and replacement of gears, bearings, pulleys, wheels, pump impellers, etc. The removal of such parts without damage often permits a saving in expensive parts and labor and eliminates delays in operations that actually pay for the tools many times over on emergency jobs alone. All of the tools in this and preceding sets have been approved by leading bearing manufacturers who recommend them for bearing removal. For detailed specifications on the individual parts comprising this set see pages 4 to 9.

| Tool No. | Description |
|----------|-------------------------------------|
| 1003 1/2 | Grip-o-matic Puller |
| 1002-L | Grip-o-matic Puller |
| 938 | Push-Puller with 930-D 9 1/2" Legs |
| 930-B | Legs for Push-Puller 16 1/2" (pair) |
| 930-C | Legs for Push-Puller 22 1/2" (pair) |
| 952-A | Bearing Pulling Attachment |
| 943 | Bearing Cup Pulling Attachment |

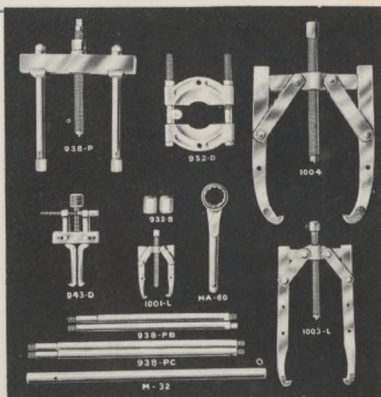
| Tool No. | Description |
|----------|---|
| 924 | Threaded Adaptor 3/8"-18 x 3/4"-16 (pair) |
| MA-48 | 1 1/2" Heavy Duty Box Wrench |
| MA-40 | 1 1/4" Heavy Duty Box Wrench |
| M-28 | Tubular Handle for Box Wrenches |
| PE-16 | Service Board (only). Wt. 26 lbs. |
| PE-15 | Industrial Maintenance Set, tools only. Wt. 92 lbs. |



INDUSTRIAL MAINTENANCE SET NO. PE-17

The ever increasing needs of industrial maintenance men prompted the addition of new sizes of pullers and combinations of pullers to meet these requirements. These new tools provide an intermediate range capable of handling the maintenance problems of small industrial plants, contractors, textile mills, etc.

This set comprises new units covering a range of sizes heretofore covered only by the larger pulling tools in the OTC line. It can be supplemented with pullers of greater capacity as the need for them arises and still retain the interchangeability that characterizes these tools. Consult the specifications on the individual tools in this set on pages 4 to 9 inclusive, in order to determine whether the range and capacity of these tools meet your requirements.



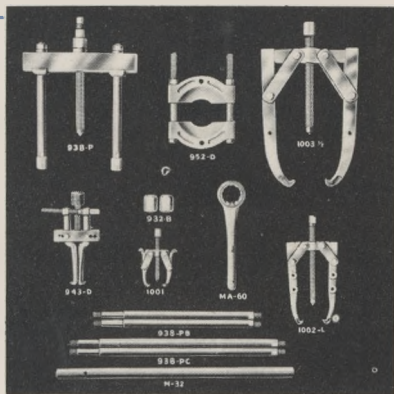
| Tool No. | Description |
|----------|---------------------------------------|
| 1003½ | Grip-o-matic Puller |
| 1002-L | Grip-o-matic Puller |
| 1001 | Grip-o-matic Puller |
| 938-P | Push-Puller with 938-PA 8" Legs |
| 938-PB | Legs for 938-P Push-Puller 18" (pair) |
| 938-PC | Legs for 938-P Push-Puller 28" (pair) |
| 952-D | Bearing Pulling Attachment |
| 943-D | Bearing Cup Pulling Attachment |

| Tool No. | Description |
|----------|---|
| 932-B | Threaded Adaptors 1"-14 x 1"-14 female (pair) |
| MA-60 | Heavy Duty Box Wrench 17½" |
| M-32 | Tubular Handle for MA-60 Wrench |
| PE-13 | Service Board (only) 3' x 4'. Wt. 42 lbs. |
| PE-17 | Maintenance Set, Tools only. Wt. 144 lbs. |

INDUSTRIAL MAINTENANCE SET No. PE-18

The maintenance set here illustrated is designed to cover a range of applications slightly larger than the set above, but smaller than those involving the largest set No. PE-20 on the following page.

Additional new sizes of pullers were added to more completely cover all industrial maintenance problems. With their wide range of adjustments these tools are well suited to industrial applications of all kinds involving the removal and replacement of gears, bearings, pulleys, wheels, shafts, bushings, sleeves, pinions and collars within their scope. Tools of greater and lesser capacities to fit every requirement are available and this set can be supplemented with these tools as the need for them arises.

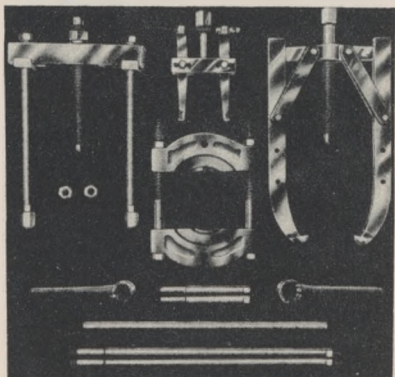


| Tool No. | Description |
|----------|---------------------------------------|
| 1004 | Grip-o-matic Puller |
| 1003-L | Grip-o-matic Puller |
| 1001-L | Grip-o-matic Puller |
| 938-P | Push-Puller with 938-PA 8" Legs |
| 938-PB | Legs for 938-P Push-Puller 18" (pair) |
| 938-PC | Legs for 938-P Push-Puller 28" (pair) |
| 952-D | Bearing Pulling Attachment |

| Tool No. | Description |
|----------|---|
| 943-D | Bearing Cup Pulling Attachment |
| 932-B | Threaded Adaptors 1"-14 x 1"-14 female (pair) |
| MA-60 | Heavy Duty Box Wrench 17½" |
| M-32 | Tubular Handle for MA-60 Wrench |
| PE-14 | Service Board (only) 3' x 4'. Wt. 39 lbs. |
| PE-18 | Maintenance Set, Tools only. Wt. 166 lbs. |



INDUSTRIAL MAINTENANCE SET No. PE-20

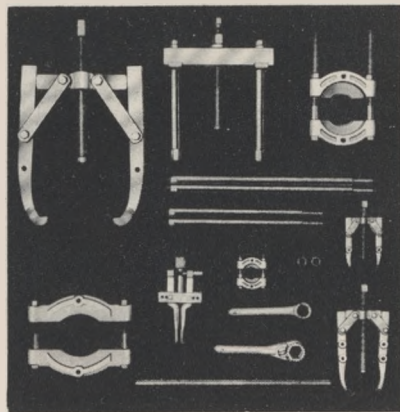


| Tool No. | Description |
|----------|--|
| 1005 | Grip-o-matic Puller |
| 939 | Push-Puller with 939-A, 8" legs |
| 939-B | Legs for Push-Puller 18" (pair) |
| 939-C | Legs for Push-Puller 28" (pair) |
| 932-B | Threaded Adaptors 1" - 14 x 1" - 14 (pair) |
| 953 | Bearing Pulling Attachment |

A highly versatile and universal set of maintenance tools designed and built particularly for use on heavy machine tools, turbines, marine engines, mining machinery and other large equipment. Especially recommended for use in railroad shops, mills, mines, factories, shipyards, shipboard and utility plants.

The removal and replacement of large gears, bearings, wheels, pulleys often presents a serious problem and results in tying up valuable production units. With this set these jobs can be accomplished in a fraction of the time ordinarily required to do them. In every case where heavy strains are necessary, it is possible with these tools to obtain a positive, non-slipping grip. This prevents accidents, eliminates damage to expensive parts and reduces maintenance costs.

| Tool No. | Description |
|----------|---|
| 947 | Bearing Cup Pulling Attachment |
| MA-72 | 2 1/2" Heavy Duty Box Wrench |
| MA-60 | 1 7/8" Heavy Duty Box Wrench |
| M-32 | Tubular Handle for Box Wrenches |
| PE-21 | Service Board (only) 4' x 4'. Wt. 70 lbs. |
| PE-20 | Maintenance Set, Tools only. Wt. 218 lbs. |



| Tool No. | Description |
|----------|---|
| 1004 | Grip-o-matic Puller |
| 1002-L | Grip-o-matic Puller |
| 1001-L | Grip-o-matic Puller |
| 938 | Push-Puller with 930-D 9 1/2" legs |
| 930-B | Legs for 938 Push-Puller 16 1/2" (pair) |
| 930-C | Legs for 938 Push-Puller 22 1/2" (pair) |

DIESEL SERVICE TOOL SET No. PD-14

The growing popularity of Diesel engines has increased the demand for a maintenance set that will handle this particular type of work. This OTC Diesel set meets the requirements of Diesel service men in railroad shops, highway shops, utilities and others. It includes three popular sizes of Grip-o-matic Pullers, one Push-Puller and the necessary attachments including a sheave pulling attachment. This makes it the most complete universal set of its kind for Diesel service and maintenance. Additional sizes of pullers can be added to increase the range of the set.

| Tool No. | Description |
|----------|--|
| 952-A | Bearing Pulling Attachment |
| 950 | Bearing Pulling Attachment |
| 943 | Bearing Cup Pulling Attachment |
| 680 | Sheave Pulling Attachment |
| 924 | Threaded Adaptors 3/8" - 18 x 3/4" - 16 (pair) |
| MA-44 | Box Wrench 1 1/2" |
| M-28 | Tubular Handle for Box Wrench |
| P-61 | Push-Puller Reversible Ratchet |
| PD-13 | Diesel Service Board (only). Wt. 48 lbs. |
| PD-14 | Diesel Service Set, Tools only. Wt. 138 lbs. |

*For All
Tractors
and Trucks*



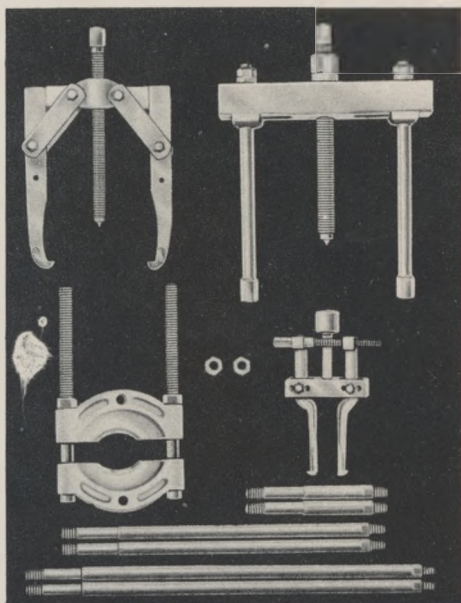
PULLING SYSTEM

BASIC TRACTOR AND TRUCK SET

NUMBER PE-8

Each tractor and truck service set is made up of eight basic pulling units as illustrated at the right, plus additional items which are special for each make of tractor and truck. The PE-8 Basic Puller Set supplemented by any one of the special sets listed at the left and right below combines to make complete tractor and truck sets as illustrated on preceding and following pages.

The OTC PULLING SYSTEM in this manner provides universal adaptability and versatility, reduces the number of tools required for good service, and effects a considerable saving in money. It enables every tractor and truck dealer to obtain at minimum cost the special tools he requires to service any make or model tractor or truck he may take in on trade.



**THE PE-8 BASIC SET ADDED
TO THE SPECIAL SETS LISTED
BELOW MAKE COMPLETE
TRACTOR SETS**

SPECIAL TRUCK SETS

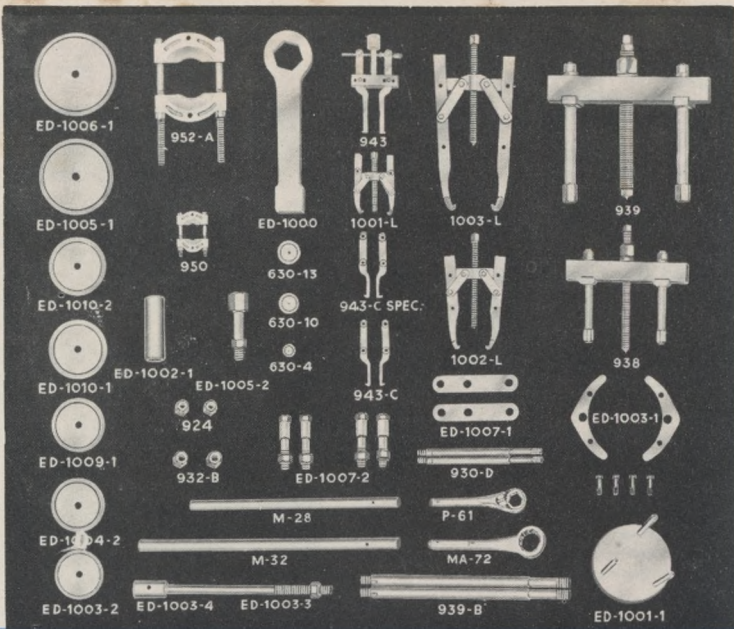
The application of OTC Pullers for truck maintenance being similar to that of tractor maintenance, OTC has developed several Truck Maintenance sets in cooperation with truck manufacturers. The PE-8 Set illustrated upper right is basic with these Truck Sets as it is with the many OTC Tractor Sets.

By adding the Truck Special Sets listed below to the PE-8 Basic Set the complete Truck Set is obtained.

The PE-8 Basic Set Added to the Truck Special Sets Listed Below Make Complete Truck Sets

| Plus PE-8 Makes Complete | | | |
|-----------------------------|----------|---------|------------------|
| Special Set No. | Wt. | Set No. | FOR |
| AT-15 | 30 lbs. | AT-23 | Autocar |
| DT-22 | 46 lbs. | DT-30 | Diamond T |
| FWD-29 | 230 lbs. | FWD-40 | Four Wheel Drive |
| IHC-30 | 86 lbs. | IHC-37 | International |
| MC-12 | 22 lbs. | MC-20 | Mack |

| Plus PE-8 Makes Complete | | | |
|-----------------------------|----------|---------|-----------------------------|
| Special Set No. | Wt. | Set No. | FOR |
| AC-17 | 26 lbs. | AC-612 | Allis-Chalmers (Farm) |
| AC-855 | 210 lbs. | AC-850 | Allis-Chalmers (Industrial) |
| AV-8 | 17 lbs. | AV-16 | Avery |
| C-13 | 32 lbs. | C-637 | J. I. Case |
| CT-19 | 49 lbs. | CT-643 | Caterpillar |
| CL-18 | 65 lbs. | CL-866 | Oliver-Cletrac |
| JD-12 | 13 lbs. | JD-16 | John Deere |
| HF-21 | 57 lbs. | HF-25 | Harry Ferguson |
| FT-17 | 35 lbs. | FT-48 | Ford Tractor |
| LC-14 | 214 lbs. | LC-22 | LaPlante Choate |
| MH-13 | 20 lbs. | MH-20 | Massey-Harris |
| MD-27 | 62 lbs. | MD-35 | McCormick-Deering |
| MM-11 | 34 lbs. | MM-22 | Minneapolis-Moline |
| OR-12 | 27 lbs. | OR-17 | Oliver |



Essential Puller Set For LeTourneau No. LTC-38

FACTORY APPROVED

Using the OTC Pulling System as a basic unit and working in cooperation with LeTourneau engineers and service men, special adaptors and attachments were designed to provide a complete puller set for use on the "Tournapull" and other LeTourneau equipment.

The tools comprising this set are designed to remove

and replace many of the bearings, pinions and other close fitting parts found on LeTourneau and other heavy equipment. With these tools it is possible to remove and replace these parts without damage and at a substantial saving in time and labor.

For a special service bulletin illustrating the use of these tools ask for LeTourneau Bulletin No. O-189.

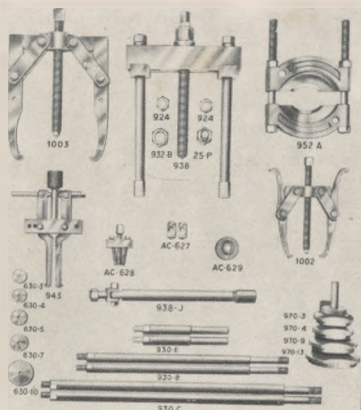
| Part No. | Description | Part No. | Description |
|-------------|--|-----------|--------------------------------------|
| 939 | Push-Puller with 939-A, 8" legs | M-32 | Tubular Handle for MA-72, 30" |
| 939-B | Legs for 939 Push-Puller 18" (pair) | M-28 | Tubular Handle for P-61, 28" |
| 938 | Push-Puller with 930-E, 4 1/2" legs | ED-1000 | Striking Wrench |
| 930-D | Legs for 938 Push-Puller, 9 1/4" (pair) | ED-1001-1 | Pusher-Plate with 3 pins |
| 1003-L | Grip-o-matic Puller with long arms | ED-1002-1 | Adaptor 1 7/8" x 1 1/2"-12 female |
| 1002-L | Grip-o-matic Puller with long arms | ED-1003-1 | Half-Moon Adaptors (pair) |
| 1001-L | Grip-o-matic Puller with long arms | ED-1003-2 | Bearing Remover Adaptor 5 1/8" |
| 950 | Bearing Pulling Attachment | ED-1003-3 | Adaptor Shank 20" long |
| 952-A | Bearing Pulling Attachment | ED-1003-4 | Connector 1"-14 x 1 1/2"-12 female |
| 943 | Bearing Cup Pulling Attachment | ED-1004-2 | Bearing Installation Adaptor 5 3/32" |
| 943-C (Sp.) | Pin Arms for 943 Attachment (pair) | ED-1005-1 | Bearing Removal Plate 8 3/16" |
| 943-C | Short Arms for 943 Cup Attachment (pair) | ED-1005-2 | Reducing Adaptor 1 1/2"-12 x 1"-14 |
| 924 | Threaded Adaptors 5/8"-18 x 3/4"-16 (pair) | ED-1006-1 | Bearing Installation Plate 8 3/16" |
| 932-B | Threaded Adaptors 1"-14 x 1"-14 (pair) | ED-1007-1 | Adaptor Straps (pair) |
| 630-13 | Step Plate Adaptor | ED-1007-2 | Special Bolts and Sleeves (2 pair) |
| 630-10 | Step Plate Adaptor | ED-1009-1 | Bearing Removal Plate 5 7/8" |
| 630-4 | Step Plate Adaptor | ED-1010-1 | Bearing Installation Plate 6 1/8" |
| P-61 | Reversible Push-Puller Ratchet | ED-1010-2 | Bearing Removal Plate 6 3/8" |
| MA-72 | 2 1/4" Heavy Duty Box Wrench | LTC-38 | Service Set Complete. Wt. 285 lbs. |



ESSENTIAL Service TOOLS FOR ALLIS-CHALMERS TRACTORS No. AC-612 FACTORY APPROVED

The maintenance set illustrated at the right was developed particularly for servicing Allis-Chalmers farm tractors and implements and is approved and recommended by the Allis-Chalmers Manufacturing Co. This set includes OTC basic pulling tools, together with several special attachments and adaptors especially designed and built for use on A-C tractors. In addition, Allis-Chalmers dealers may, with the addition of other OTC tools use this set for servicing other makes of tractors taken in on trade. The attractive Service Board should be purchased with the set as it serves as an advertisement of your facilities and at the same time provides a substantial and permanent place to keep the tools.

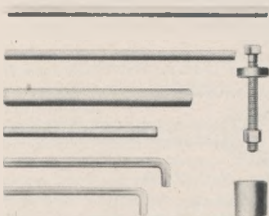
| Tool No. | Description |
|----------|-------------------------------------|
| 1009 | Grip-o-matic Puller |
| *1002 | Grip-o-matic Puller |
| 938 | Push-Puller with 930-D 9 1/2" legs |
| 930-B | Legs for Push-Puller 16 1/2" (pair) |
| 930-C | Legs for Push-Puller 22 1/2" (pair) |
| 930-E | Legs for Push-Puller 4 1/2" (pair) |
| 952-A | Bearing Pulling Attachment |
| 943 | Bearing Cup Pulling Attachment |
| *938-J | Swivel Sleeve Pulling Attachment |
| *970-3 | Sleeve Puller Adaptor Plate 3 1/4" |
| *970-4 | Sleeve Puller Adaptor Plate 4" |
| *970-9 | Sleeve Puller Adaptor Plate 4 1/2" |
| *970-13 | Sleeve Puller Adaptor Plate 4 1/2" |
| *AC-627 | Brake Drum Leg Ends (pair) |
| *932-B | Threaded Adaptor 1"-14 x 1"-14 |



| Tool No. | Description |
|----------|---|
| 924 | Threaded Adaptor 5/8"-18 x 3/4"-16 (pair) |
| †930-J | Leg Ends for "G" Brake Drum |
| *630-3 | Step Plate Adaptor 1 1/4" x 1 1/4" |
| *630-4 | Step Plate Adaptor 1 3/4" x 1 1/4" |
| *630-5 | Step Plate Adaptor 1 3/4" x 1 1/4" |
| *630-7 | Step Plate Adaptor 1 3/4" x 1 1/4" |
| *630-10 | Step Plate Adaptor 2 3/4" x 1 1/4" |
| *26-P | Male Plug Adaptor 3/4"-10 x 1/2"-18 |
| *AC-628 | Pump Flange Puller |
| *AC-629 | Impeller Puller Collar |
| †AC-631 | Cam Shaft Bushing Driver |
| AC | Service Board 3' x 4' (only). Wt. 28 lbs. |
| AC-612 | Service Set, Tools only. Wt. 96 lbs. |

†Included in set but not illustrated.
*Included in Special Set No. AC-17. See page 25.

ALLIS-CHALMERS SPECIAL TOOLS



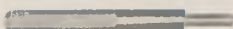
HYDRAULIC PUMP SET
NO. AC-7A

An essential set for servicing the hydraulic pump on Allis-Chalmers tractors. One punch 1 1/2" in diameter, No. AC-34 for removing and installing the Safety Release Valve Seat Insert has been added to this set. Those who have the AC-7 set may add this extra punch.

No. AC-7A—Pump Set, 8 tools. Wt. 1 1/4 lbs.
No. AC-34—Punch 1 1/2". Wt. 1/4 lb.

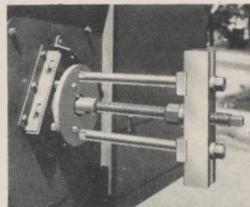
CAMSHAFT BUSHING DRIVER

NO. AC-631 A special tool built to remove and install camshaft bushings in Allis-Chalmers models "B", "B-15", "C", "RC", "WC", "WE" and "W-25". Included in the AC-612 Essential Tool Set.
No. AC-631—Camshaft Driver. Wt. 4 1/4 lbs.



VALVE GUIDE DRIVERS

A complete set of Valve Guide Drivers for Allis-Chalmers farm tractors. Five sizes are available:
No. AC-10—3/8" for Model "G" engine. Wt. 8 oz.
No. AC-11—1/2" for Model "B" engine. Wt. 8 oz.
No. AC-12—3/4" for Model "W" engine. Wt. 10 oz.
No. AC-14—1" for Model 4 1/4 x 6 1/2 engine. Wt. 10 oz.
No. AC-16—1 1/2" for Model "L" engine. Wt. 12 oz.
No. AC-5—Set of 5 drivers. Wt. 3 lbs.

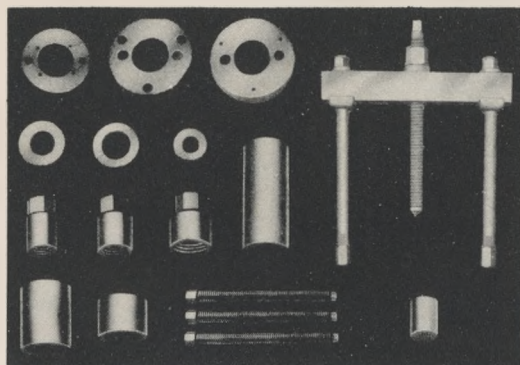


**MODEL 60 HARVESTER
BEARING PULLING ATTACHMENT No. AC-635**

This attachment is for use with the OTC Push-Puller for removing the Model 60 Harvester cylinder bearing housing. This tool is a necessity for all A-C dealers servicing Harvesters. Does the job quicker and easier than by any other method.

No. AC-635—Special Bearing Attachment. Wt. 6 lbs.

ALLIS-CHALMERS INDUSTRIAL SERVICE TOOLS

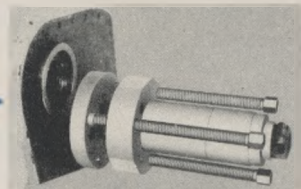


A-C SPROCKET SHAFT AND SPACER PULLING AND INSTALLING SET No. AC-688-B



A complete set of tools for servicing Allis-Chalmers Industrial tractors, developed and designed in cooperation with Allis-Chalmers service engineers is available to A-C dealers and users. The set shown at the left is built especially to remove and install the Sprocket Shafts and Spacers on the HD-7, HD-7W, HD-10, HD-10W, HD-14 and HD-14C. These tools simplify otherwise long and costly operations and do them easier and faster than they can be done by any other means. They are approved and recommended by the Allis-Chalmers Mfg. Co. See Bulletin AC-647 for more complete details. For complete service sets see listings immediately below.

This illustration shows the removal of the HD-10W Sprocket Shaft. Similar set-ups are required to do the same job on other models.



No. AC-688-B—Sprocket Shaft and Spacer Pulling and Installing Set. Complete wt. 243 lbs.

Essential SERVICE TOOLS FOR ALLIS-CHALMERS INDUSTRIAL TRACTORS

The sets listed below contain tools essential to the proper and efficient servicing of A-C Industrial tractors. They have been engineered specifically for this work in cooperation with A-C service engineers and are approved and recommended by the Allis-Chalmers Mfg. Company.

The tools included in these sets, singly and together, accomplish most of the operations involving the removal of bearings, pinions, shafts, spacers, gears, hubs, etc., on the HD-7, HD-7W, HD-10, HD-10W, HD-14 and HD-14C. Every

A-C Industrial dealer and user should have a complete set of these tools.

- No. AC-850 Complete Service Set for HD-7, HD-10 and HD-14 Tractors. Wt. 280 lbs.
- No. AC-800 Complete Service Set for HD-7 Tractor. Wt. 171 lbs.
- No. AC-810 Complete Service Set for HD-10 Tractor. Wt. 150 lbs.
- No. AC-820 Complete Service Set for HD-14 Tractor. Wt. 152 lbs.

ALLIS-CHALMERS SPECIAL PULLER FOR HD-5 No. AC-752

A puller designed and built especially to pull the HD-5 Steering Clutch Shaft and Final Drive Pinion Shaft Hubs is essential for these operations. This puller was designed to A-C specifications. It consists of a round plate 1" thick by $7\frac{1}{4}$ " in diameter equipped with a Forcing Screw $3\frac{1}{2}$ " long. Four cap screws $\frac{1}{2}$ " USS and $1\frac{1}{4}$ " and two cap screws $\frac{3}{4}$ " USS x $2\frac{3}{4}$ " are also furnished.

No. AC-752—Special Puller. Wt. 10 lbs.

HD-19 SPROCKET NUT



WRENCH No. AC-750

A special wrench is necessary to tighten the HD-19 Sprocket Shaft Nut No. 062100 as illustrated above. This wrench is built to A-C specifications and is essential to every dealer or user servicing the HD-19 tractor. The wrench is 36" long and has a 6 1/2" opening.

No. AC-750—Sprocket Shaft Nut Wrench. Wt. 30 lbs.



HD-19 TORQUE CONVERTER LIFTING EYE No. AC-754

This forged lifting eye when threaded into the Torque Converter simplifies lifting this part out of the tractor. The diameter of the eye is $1\frac{1}{2}$ " and provides ample clearance for a chain hoist hook. An inexpensive but very essential tool for servicing the HD-19 tractor. It has a $\frac{3}{8}$ "-11 thread.

No. AC-754—HD-19 Converter Lifting Eye. Wt. 1 lb.



A-C SPECIAL WRENCHES

Three essential wrenches for servicing A-C tractors are available. No. MA-28 and MA-30 for removing the bolts in the HD-7, HD-10 and HD-14 Steering Clutch and the SWH-70 Sledging Wrench for tightening the HD-19 equalizer spring "U" bolts. Use Box Wrs. with M-28 Handle.

- No. MA-24—Box Wrench $\frac{3}{4}$ " for HD-7, HD-5, HD-10.
- No. MA-28—Box Wrench $\frac{7}{8}$ " for HD-10.
- No. MA-30—Box Wrench $1\frac{1}{2}$ " for HD-14.
- No. M-28—Tubular Handle for MA-28 and MA-30.
- No. SWH-70—Sledging Wrench for HD-19 "U" Bolts.

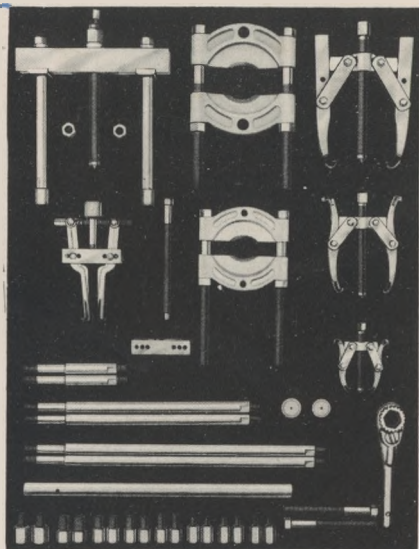


CATERPILLAR SERVICE TOOL SET No. CT-643

This new CATERPILLAR puller set has been revised and expanded to cover a wider range of jobs than ever before. Additions to this set were made on the recommendation of the CATERPILLAR TRACTOR CO.

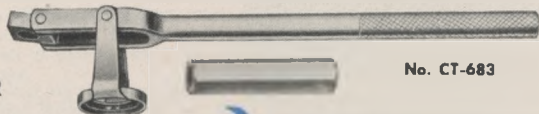
This set handles a large percentage of the removal and installing service operations involving bearings, gears, shafts, bearing outer races, etc., on all CATERPILLAR equipment and does these jobs at a substantial saving of time and money, and without damage to costly parts. The tools included in this set are universal and will operate equally well on other makes and models of tractors or industrial equipment. They have a wide range of adaptability and will not become obsolete over a period of years.

| Tool No. | Description |
|----------|--|
| 1003 | Grip-o-matic Puller |
| 1002 | Grip-o-matic Puller |
| 1001 | Grip-o-matic Puller |
| 938 | Push-Puller with 930-D, 9 1/2" legs |
| 930-B | Legs for Push-Puller, 16 1/2" (pair) |
| 930-C | Legs for Push-Puller, 22 1/2" (pair) |
| 930-E | Legs for Push-Puller, 4 1/2" (pair) |
| 952-D | Bearing Pulling Attachment |
| 952-D5 | Forcing Bolts for 952-D (pair) |
| 952-A | Bearing Pulling Attachment |
| 952-B | Forcing Bolts for 952-A, 3/4"-18 (pair) |
| 943 | Bearing Cup Pulling Attachment |
| 943-2 | Slotted Block |
| 924 | Female Adaptors 3/8"-18 x 3/4"-16 (pair) |
| 515-S | Forcing Screw |
| 20-M | Adaptor 3/8"-11 Male x 3/8"-18 Female (pair) |
| 16-M | Adaptor 3/8"-16 Male x 3/8"-18 Female (pair) |
| 16-M | Adaptor 3/8"-20 Male x 3/8"-18 Female (pair) |
| 17-M | Adaptor 3/8"-13 Male x 3/8"-18 Female (pair) |
| 24-M | Adaptor 3/8"-16 Male x 3/8"-18 Female (pair) |
| 25-M | Adaptor 3/8"-10 Male x 3/8"-18 Female (pair) |
| 32-M | Adaptor 1"-14 Male x 3/8"-18 Female (pair) |
| 24-P | Adaptor 3/8"-16 Male x 1"-14 Female (pair) |
| 630-5 | Step Plate 1 3/4" x 1 1/4" |



| Tool No. | Description |
|----------|---|
| 630-6 | Step Plate 1 3/4" x 1 1/4" |
| P-61 | Reversible Push-Puller Ratchet |
| M-28 | Tubular Handle for P-61 Ratchet |
| CT-22 | Caterpillar Service Board (only) 3' x 4'. Wt. 40 lbs. |
| CT-643 | Caterpillar Service Set, Tools only. Wt. 105 lbs. |

CATERPILLAR VALVE SPRING COMPRESSOR

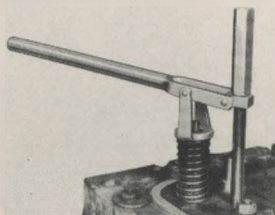


No. CT-683

This new CATERPILLAR tool was designed and developed in cooperation with CATERPILLAR service engineers and built especially for the job. It operates successfully on all CATERPILLAR Diesel engines since it includes a double-end adaptor which fits two sizes of cylinder studs. The leverage supplied is adequate to compress these valve springs safely and easily. Both the yoke and the handle are drop-forged for strength and long life and fully heat-treated against wear. This tool will save its cost in very few operations.

No. CT-683—Valve Spring Compressor. Wt. 6 lbs.

This picture illustrates the use of this new tool. Its operation is simple, safe and easy. There is no danger of the tool slipping after the spring has been compressed.

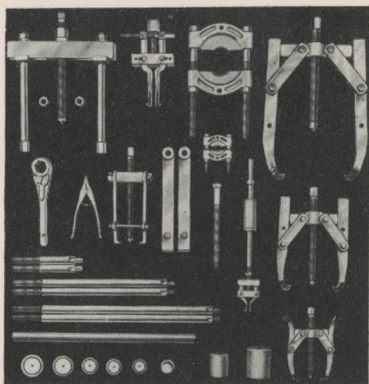


ADJUSTABLE SPANNER WRENCH NO. CT-685



This tool was developed and built especially for use on CATERPILLAR tractors but operates equally well on other makes of equipment. Two interchangeable hooks—one 3/4" thick and the other 3/8" thick with both having eleven adjustments provide a range of sizes which eliminates most of the fixed-type spanner wrenches used on CATERPILLARS. The handle is drop-forged from Chrome Alloy steel and all parts are fully heat-treated for strength. Chrome plated finish.

No. CT-685—Adjustable Spanner Wrench. Wt. 10 1/2 lbs.



| Tool No. | Description |
|-----------|--|
| *1003 1/2 | Grip-o-matic Puller |
| 1003 | Grip-o-matic Puller |
| *1002 | Grip-o-matic Puller |
| 938 | Push-Puller with 930-D 9 1/2" legs |
| 930-B | Legs for Push-Puller 16 1/2" (pair) |
| 930-C | Legs for Push-Puller 22 1/2" (pair) |
| 930-E | Legs for Push-Puller 4 1/2" (pair) |
| 952-A | Bearing Pulling Attachment |
| *950 | Bearing Pulling Attachment |
| 943 | Bearing Cup Pulling Attachment |
| 924 | Adaptors 5/8"-18 x 3/4"-16 female (pair) |

*Included in Special Set No. CL-18. See page 25.



ESSENTIAL *Service* SET for OLIVER-CLETRAC TRACTORS NO. CL-666 FACTORY APPROVED

The puller set illustrated on the left was developed in cooperation with the Cleveland Tractor Company and is recommended to all Cletrac dealers and users for service on Cletrac tractors.

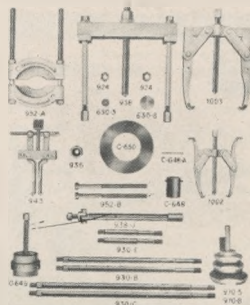
These tools will remove and replace most of the bearings, gears, sprockets, wheels and other tightly fitted parts without damage and at a substantial saving in time and labor. They will pay for themselves many times over in parts saved alone, and in addition will reduce the danger of forced "down time" on valuable equipment. These tools work equally well on other makes and models of tractors, trucks, road machinery, power shovels and other equipment and will give years of satisfactory service.

For detailed information on specific service applications involving tools in this set ask or write for Cletrac Bulletin No. CL-49.

| Tool No. | Description |
|-----------|---|
| *954 | Pilot Bearing Puller |
| *630-7 | Step Plate Adaptor 1 3/8" x 1 1/2" |
| *630-8 | Step Plate Adaptor 2" x 1 1/2" |
| *630-9 | Step Plate Adaptor 2 1/2" x 1 1/2" |
| *630-12 | Step Plate Adaptor 2 1/2" x 2 1/2" |
| *630-14 | Step Plate Adaptor 2 1/2" x 2 3/8" |
| *630-L | Special Step Plate Adaptor |
| *614 | Snap Ring Plier |
| *515-S | Forcing Screw |
| *CL-643 | Adaptor for Replacing EH, A and B Oil Seal |
| *CL-644 | Adaptor for Replacing HG Oil Seal |
| *CL-645 | Special Bearing Puller |
| *CL-645-A | Special Puller Arms for CL-645 |
| *P-61 | Reversible Push-Puller Ratchet |
| *M-28 | Tubular Handle for P-61 Ratchet |
| CL-25 | Service Board (only) 4' x 4'. Wt. 30 lbs. |
| CL-666 | Oliver-Cletrac Set (Tools only). Wt. 100 lbs. |

ESSENTIAL *Service* SET FOR CASE TRACTORS No. C-637

FACTORY APPROVED



A complete set of pullers developed especially for servicing J. I. CASE tractors, approved and recommended by the Case factory.

This set will accomplish the majority of pulling and installing service operations involving bearings, gears, shafts, couplings, bushings, sleeves, bearing outer races, etc. These jobs are done without damage to parts and at a considerable saving of time. The tools included in this set are universal. They will not become obsolete with each model change and in addition can be used on other makes and models of tractors which may be taken in on trade.

See Bulletin C-48 for more detailed information.

| Tool No. | Description |
|----------|---|
| 1003 | Grip-o-matic Puller |
| *1002 | Grip-o-matic Puller |
| 938 | Push-Puller with 930-D 9 1/2" legs |
| 930-B | Legs for Push-Puller 16 1/2" (pair) |
| 930-C | Legs for Push-Puller 22 1/2" (pair) |
| 930-E | Legs for Push-Puller 4 1/2" (pair) |
| 952-A | Bearing Pulling Attachment |
| *952-B | Forcing Bolts for 952-A Attachment 5/8"-18 (pair) |
| *938-J | Swivel Sleeve Pulling Attachment |
| 943 | Bearing Cup Pulling Attachment |
| *C-648 | Special Adaptor 1" female |
| *C-648-A | Extra Pin for C-648 for use on Model "S" |

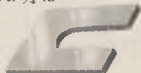
*Included in Special Set No. C-13. See page 25.

| Tool No. | Description |
|----------|--|
| *C-649 | First Reduction Shaft Bearing Puller |
| *C-650 | Governor Gear Pulling Plate |
| *970-5 | Sleeve Puller Adaptor Plate 3 1/2" |
| *970-8 | Sleeve Puller Adaptor Plate 3 3/8" |
| *970-14 | Sleeve Puller Adaptor Plate 4 3/8" |
| *936 | Threaded Adaptor 5/8"-18 x 1 1/8"-12 female |
| 924 | Threaded Adaptor 5/8"-18 x 3/4"-16 female (pair) |
| *630-3 | Step Plate Adaptor 1" x 1 1/4" |
| *630-8 | Step Plate Adaptor 1 3/8" x 2" |
| CA-21 | Service Board (only) 3' x 4'. Wt. 28 lbs. |
| C-637 | Case Service Set, Tools only. Wt. 106 lbs. |



For use with tool C-649 to remove first reduction shaft bearing on the "SC" tractor.

No. C-649A-Collet (only)
Wt. 3 1/2 lbs.



For use with the No. 1003 1/2 GRIP-O-MATIC Puller to remove the Model "S" belt pulley. No. C-652-Belt Pulley Plate. Wt. 1 3/4 lbs.



ESSENTIAL *Service* SET FOR FORD TRACTORS

No. FT-48

FACTORY APPROVED

Designed especially for use on the Ford Tractor this set has been developed with the cooperation of Ford service engineers and is recommended for all Ford Tractor dealers.

The set illustrated at the right contains all the essential tools required to do all the service operations involving the removal and installation of bearings, gears, pinions, shafts, seals and other close fitting parts on the Ford Tractor.

The basic tools contained in this set are universal and can be used on other makes and models of tractors which may be taken in on trade. In addition, they will not become obsolete with each model change and will give years of satisfactory service.

A supplementary tool set No. FT-45 is also recommended for this tractor and is shown in Service Bulletin FT-50.

For complete details see the Ford Tractor Bulletin No. FT-50.

| Tool No. | Description |
|----------|--|
| *1001 | Grip-o-matic Puller |
| *1002 | Grip-o-matic Puller |
| 1003 | Grip-o-matic Puller |
| 938 | Push-Puller with 930-D, 9 1/2" legs |
| 930-B | Legs for 938 Push-Puller 16 1/2" (pair) |
| 930-E | Legs for 938 Push-Puller 4 1/2" (pair) |
| 952 | Bearing Pulling Attachment |
| 951 | Bearing Pulling Attachment |
| 943 | Bearing Cup Pulling Attachment |
| *FT-480 | Legs for 938 Push-Puller, special (pair) |
| *FT-482 | Drive Pinion Pulling Attachment |
| *FT-943 | Jaws, Special for 943 Attachment |
| 924 | Adaptor 5/8"-18 x 3/4"-16 female (pair) |

*Included in Special Set No. FT-17. See page 25.

ESSENTIAL *Service* SET FOR HARRY FERGUSON TRACTORS

No. HF-25

FACTORY APPROVED

The set of tools illustrated at the right was developed with the cooperation of Harry Ferguson service engineers and is approved and recommended by that company for service on Ferguson tractors. This set includes only essential pullers for removing and installing bearings, gears, pulleys, pinions, shafts and other tight fitting parts. They can also be used on farm implements and will work equally well on other makes and models of tractors that may be taken in on trade. The tools in this set will not become obsolete with each model change and consequently reduces your tool investment.

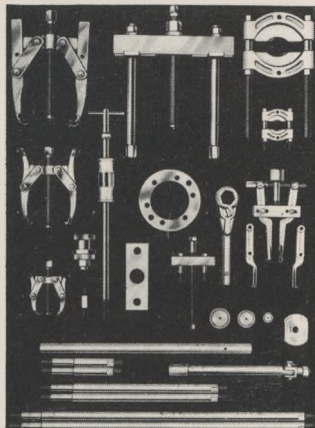
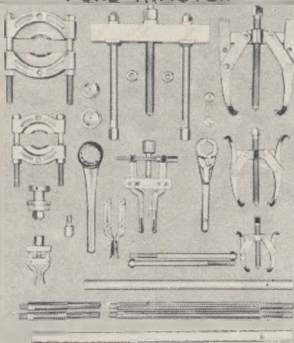
A supplementary set of tools, No. HF-2, listed and illustrated in service bulletin No. HF-48 is also recommended for this tractor.

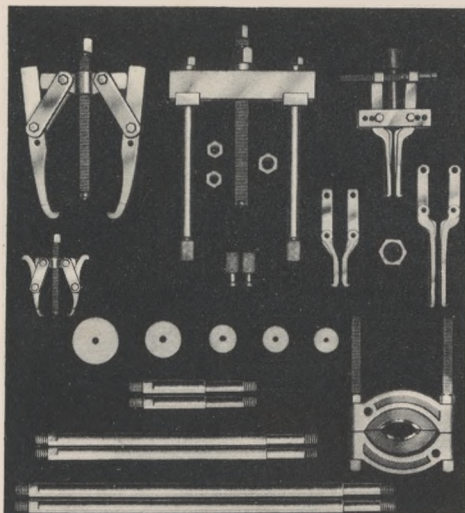
| Tool No. | Description |
|----------|--|
| *1001 | Grip-o-matic Puller |
| *1002 | Grip-o-matic Puller |
| 1003 | Grip-o-matic Puller |
| 938 | Push-Puller with 930-D 9 1/2" legs |
| 930-B | Legs for Push-Puller 16 1/2" (pair) |
| 930-E | Legs for Push-Puller 4 1/2" (pair) |
| *930-F | Legs for Push-Puller, special 30" (pair) |
| 952-A | Bearing Pulling Attachment |
| *950 | Bearing Pulling Attachment |
| 943 | Bearing Cup Pulling Attachment |
| *FT-943 | Special Jaws for 943 Attachment (pair) |
| *943-S | Slide Hammer Assembly (only) |
| *630-F | Special Step Plate |
| *FT-480 | Legs for Push-Puller, special (pair) |
| *FT-482 | Drive Pinion Pulling Attachment |

| Tool No. | Description |
|-----------|---|
| *FT-485 | Rear Axle Bearing Pulling Plate |
| *FT-485-B | Holding Yoke for Rear Axle Bearing Puller |
| *938-J | Sleeve Puller Extension |
| *970-2F | Sleeve Puller Adaptor Plate |
| *630-2 | Step Plate 1 1/4" x 1 1/4" |
| *630-5 | Step Plate 1 5/8" x 1 1/4" |
| *630-8 | Step Plate 2" x 1 1/4" |
| *630-10 | Step Plate 2 3/4" x 1 1/4" |
| *P-61 | Reversible Push Puller Ratchet |
| *M-28 | Tubular Handle for P-61 |
| *515 | Crankshaft Gear Puller |
| *13-M | Adaptor 5/8"-18 female x 1/2"-20 male |
| *20-M | Adaptor 5/8" female x 3/8" male |
| HF-25 | Harry Ferguson Service Set (Tools only), wt. 122 lbs. |
| HF-26 | Harry Ferguson Service Board, 3' x 4', wt. 27 lbs. |

*Included in Special Set No. HF-21. See page 25.

SERVICE TOOLS FOR FORD TRACTOR





ESSENTIAL Service SET

FOR JOHN DEERE TRACTORS

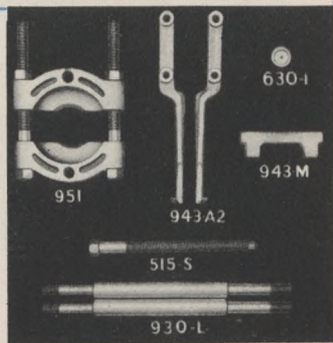
**No. JD-16
FACTORY APPROVED**

A complete set of pullers for removing and replacing gears, bearings, pinions, wheels, pulleys, etc., on John Deere tractors and implements. Recommended for all John Deere dealers by the John Deere Tractor Co., this set will accomplish a majority of the service problems found on these tractors and in addition will operate just as successfully on trade-ins regardless of make or model. Thousands of these sets are already in use and testify to its popularity with the trade. For complete details on John Deere Tractor tools write or ask for Bulletin JD-50.

| Tool No. | Description |
|----------|--|
| *1001 | Grip-o-matic Puller |
| 1003 | Grip-o-matic Puller |
| 938 | Push-Puller with 930-D, 9 1/2" legs |
| 930-B | Legs for 938 Push-Puller 16 1/2" (pair) |
| 930-C | Legs for Push-Puller 22 1/2" (pair) |
| 930-E | Legs for Push-Puller 4 1/2" (pair) |
| 952-A | Bearing Pulling Attachment |
| *932-A | Adaptor 3/4"-16 x 1"-14 female |
| *948-A | Adaptor 1"-14 x 1 1/2"-12 female |
| 924 | Adaptors 3/8"-18 x 3/4"-16 female (pair) |
| 943 | Bearing Cup Pulling Attachment |

| Tool No. | Description |
|----------|--|
| *943-A1 | Long Jaws for No. 943 Bearing Cup Puller |
| *943-C1 | Short Jaws for No. 943 Bearing Cup Puller |
| *930-J | Turned Leg-ends to pull Clutch Drive Disc |
| *630-4 | Step Plate 1 1/8" x 1 1/8" |
| *630-7 | Step Plate 1 1/8" x 1 1/8" |
| *630-9 | Step Plate 1 1/8" x 2 1/8" |
| *630-13 | Step Plate 2 1/4" x 2 3/4" |
| *630-17 | Step Plate 3" x 3 1/2" |
| JD-11 | Service Board (only) 3' x 3'. Wt. 20 lbs. |
| JD-16 | John Deere Service Set, Tools only. Wt. 85 lbs. |

*Included in Special Set No. JD-12. See page 25.



JOHN DEERE Model M TOOL SET No. JD-6

FACTORY APPROVED

These are supplementary tools required, in addition to the JD-16 Set above, to service the new Model "M" John Deere tractor. Only six items as illustrated at the left are needed with the JD-16 Set for removing and installing gears, bearings, shafts, bearing outer races, etc.

These tools like the others recommended for John Deere tractors will not become obsolete with each change of model and will work equally well on other makes and models of tractors that may be taken in on trade.

| Tool No. | Description |
|----------|--|
| 951 | Bearing Pulling Attachment |
| 943-A2 | Special Bearing Cup Pulling Jaws (pair) |
| 943-M | Bearing Cup Puller Bridge |
| 930-L | Special Push-Puller Legs for pulling Rear Wheel Web (pair) |

| Tool No. | Description |
|----------|--|
| 515-S | Forcing Screw (only) for use with 943. |
| 630-4 | Step Plate 1 3/8" x 1 1/8" |
| JD-6 | Essential Tool Set for Model M, wt. 13lbs. |

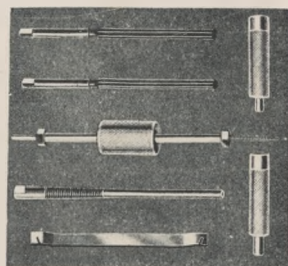


JOHN DEERE CARBURETOR Service SET

No. JD-90A

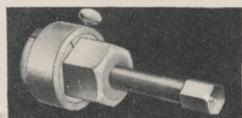
A factory approved set for servicing John Deere tractor carburetors and an essential set in every John Deere shop. The set consists of eight tools each one of which was designed and built especially for servicing these carburetors. The tools in this set work on Models A, B, G, GM, D and H and is the most complete set on the market for this purpose.

Every John Deere dealer should be equipped with this tool set.



| Tool No. | Description |
|----------|---|
| JD-80 | Jet Remover for A, B, G, GM, D. |
| JD-81 | Throttle Bushing Remover for Model H, A, B, G, D. |
| JD-82 | Float Bender for A, B, G, GM, D (2) |
| JD-83 | Bushing Reamer for A, B, G, GM, D |

| Tool No. | Description |
|----------|---|
| JD-84 | Bushing Reamer for Model H |
| JD-85 | Upper Throttle Bushing Driver for H |
| JD-86 | Upper Bushing Driver for A, B, G, GM, D |
| JD-89 | Bowl Vent Baffle Installing Tool |
| JD-90A | Complete Set in Metal Case. Wt. 3 lbs. |



SPECIAL COLLETS

JD-622 and JD-623

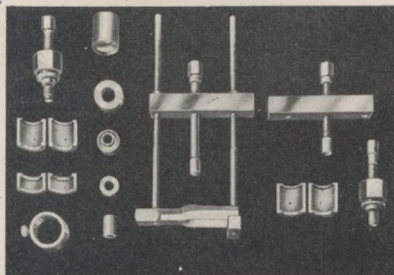
Two special collets for use with the JD-40 set opposite are built to remove

the LH Camshaft bearing on the "A" and the RH Countershaft bearing on the "B". Use parts JD-20 and JD-20-4 with these collets.

No. JD-622—Collet for LH Camshaft Brg. Wt. $\frac{3}{4}$ lb.

No. JD-623—Collet for RH Countershaft Bearing.

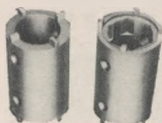
Wt. $1\frac{1}{4}$ lbs.



GOVERNOR AND FANSHAFT PULLER SET No. JD-40

A complete set of tools for removing and installing the magneto drive flange, governor gears, fanshaft bevel gear, fanshaft bevel pinion and inner race of the fanshaft rear bearing. An essential set in every John Deere shop. For more details see Bulletin JD-47.

No. JD-40—Governor Shaft Set. Wt. 23 lbs.

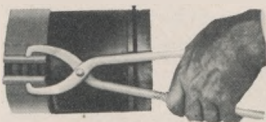


COUNTERSHAFT LOCK NUT WRENCH No. JD-631

A double-end wrench for removing and replacing the Countershaft Lock Nut on Model "A" and "B"

six speed tractors. It works equally well on the Sliding Gear Shaft. Comes complete with a 10" bar.

No. JD-631—Countershaft Lock Nut Wr. Wt. $3\frac{1}{2}$ lbs.



IMPROVED RING COMPRESSOR No. JD-869

Especially good on John Deere tractors. Has 6 flexible bands $2\frac{1}{2}$ " wide which give it a range from $3\frac{3}{16}$ " to $6\frac{3}{4}$ ". Includes bands JD-869-C, D, E, F, G, H.

No. JD-869—Ring Compressor. Wt. 3 lbs.

JD-869-B—Compressor Tongs (only).

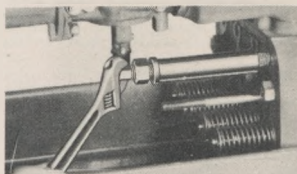


MAGNETO WRENCH No. 511

An especially handy wrench for removing and installing John Deere Magnets. Double-end with $\frac{1}{4}$ " and $\frac{3}{8}$ " openings.

No. 511—John Deere Magneto Wrench. Wt. 7 oz.

PUSH ROD SLEEVE PULLER AND DRIVER No. 646

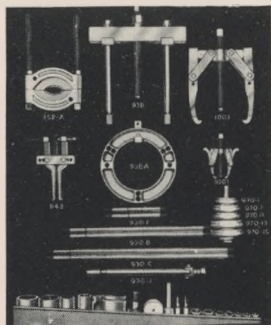


A special tool set built to remove and

install the push rod sleeves on the Model A and Model B tractors without removing the cylinder head.

An essential set in every John Deere service shop that will save its cost in one job.

No. 646—Push Rod Sleeve Set. Wt. $2\frac{1}{2}$ lbs.



INTERNATIONAL TRACTOR SERVICE TOOL SET NO. MD-35

FACTORY APPROVED

The removal and installation of pinions, gears, bearings, shafts, flywheels, bearing outer races, etc., on International Tractors is made easy with the tool set illustrated at the left. While several special adaptors are included for old models, this set will operate just as successfully on the new models, and will do 95% of the service operations involving the removal and installation of tight fitting parts. The basic pullers in this set will not become obsolete with each model change and will operate equally well on other makes and models of tractors. Substantial savings in time and labor are possible with these tools which also reduce breakage of parts and prevent accidents.

| Tool No. | Description |
|----------|---|
| 1003 | Grip-o-matic Puller |
| 1001 | Grip-o-matic Puller |
| 938 | Push-Puller for 930-D, 9 1/2" legs |
| 930-B | Legs for Push-Puller 16 1/2" (pair) |
| 930-C | Legs for Push-Puller 22 1/2" (pair) |
| 930-E | Legs for Push-Puller 4 1/2" (pair) |
| 938-A | Flywheel Pulling Attachment |
| 938-B | Crankshaft Rear End Adaptor 1" x 2 3/4" |
| 938-C | Crankshaft Rear End Adaptor 1" x 2 1/4" |
| 938-D | Crankshaft Front End Adaptor 1" x 1 3/4" |
| 938-E | Crankshaft Front End Adaptor 1" x 1 1/4" |
| 938-F | Camshaft Adaptor 1" x 1" female |
| 938-G | Gear Housing Adaptor Plugs 3/8" x 1/8" (pair) |
| 938-H | Gear Housing Adaptor Plugs 1/2" x 1/4" (pair) |
| 938-I | Flywheel Adaptor 2 1/4" x 1 1/2" (Use with 938-C) |
| 938-J | Swivel Sleeve Puller Attachment |
| 938-K | Spline Shaft Bearing Race Collet |

| Tool No. | Description |
|----------|---|
| 938-L | Flywheel Adaptor Plate 2 1/8" OD |
| 938-M | Flywheel Adaptor Plate 2 5/8" OD |
| 938-N | Flywheel Key Plate |
| 943 | Bearing Cup Pulling Attachment |
| 952-A | Bearing Pulling Attachment |
| 970-1 | Sleeve Puller Adaptor Plate 3" |
| 970-4H | Sleeve Puller Adaptor Plate 3 3/8" |
| 970-7 | Sleeve Puller Adaptor Plate 3 1/2" |
| 970-8M | Sleeve Puller Adaptor Plate 3 1/4" |
| 970-11 | Sleeve Puller Adaptor Plate 4 1/2" |
| 970-13 | Sleeve Puller Adaptor Plate 4 1/4" |
| 970-15 | Sleeve Puller Adaptor Plate 4 1/2" |
| MD-7 | Threaded Adaptor Set 3/8", 1/2" (2), 3/8", 1", 1 1/2", 1 3/4" |
| MD | Service Board (only) 3' x 4'. Wt. 30 lbs. |
| MD-35 | McCormick-Deering Service Set, Tools only. Wt. 135 lbs. |

SPECIAL TOOLS FOR INTERNATIONAL TRACTORS



DIESEL RING COMPRESSOR No. HC-686

Designed especially for use on International Harvester Industrial Tractors "14", "14A", "18" and "18A" Diesel engines.

Approved and recommended by International Harvester. Operation: Place the connecting rod with piston in a vise with brass jaws. Assemble the ring compressor over the rings and press the two halves together until the clips snap in place.

No. HC-686—Diesel Ring Compressor. Wt. 3 lbs.



IMPULSE COUPLING PULLER No. MT-50

Built especially to pull the impulse coupling on International Magneto H-1, H-4, F-4 and F-6. Does this job quickly and easily without loss of time.

No. MT-50—Impulse Coupling Puller. Wt. 1/2 lb.



"H" & "M" TRANSMISSION SHAFT PILOT BEARING PULLER No. JD-30

This tool pulls the Farmall "H" and "M" transmission shaft pilot bearing No. 43356D quickly and easily. Will

also remove the inner race if it is left on the shaft. Tool consists of JD-22, JD-20-4 and JD-20-13.

No. JD-20-13—Split Collet (only). Wt. 1 lb.

No. JD-30—Bearing Puller, complete. Wt. 3 1/2 lbs.

TRUCK AND TRACTOR SLEEVE PULLER SETS

The following combinations of the No. 970 Sleeve Puller (Page 37) are recommended for International Truck and Tractor dealers:

No. HC-19 Set for Trucks & Tractors

No. 970 Puller plus 970-1, 970-4, 970-4B, 970-4H, 970-5, 970-5C, 970-6, 970-7, 970-7K, 970-8M, 970-9W, 970-10K, 970-11, 970-12K, 970-13, 970-15, 970-15K and 970-17 Adaptor Plates. Wt. 64 lbs.

No. HC-8 Set for Tractors

No. 970 Puller plus 970-1, 970-4H, 970-7, 970-8M, 970-11, 970-13 and 970-15. Wt. 38 lbs.

No. HC-13 Set for Trucks

No. 970 Puller plus 970-4, 970-4B, 970-5, 970-5C, 970-6, 970-7, 970-7K, 970-9W, 970-10K, 970-12K, 970-15K and 970-17. Wt. 50 lbs.



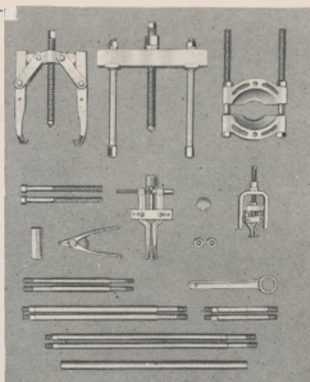
ESSENTIAL *Service* SET FOR AVERY TRACTORS

No. AV-16

FACTORY APPROVED

Illustrated at the right is the factory approved, essential service set for use on the Model "A" Avery tractor. The tools in this set are recommended to Avery dealers as the most compact, universal set it is possible to obtain. It will handle a large majority of the service operations involving the removal and installation of gears, bearings, pulleys, pinions, outer races, etc., and do these jobs quickly and easily. In addition, it will do these same jobs on other makes and models of tractors which may be taken in on trade.

The special set No. AV-8 when added to the OTC Basic Set No. PE-8 (see catalogue page 25) combines to make the complete Avery Set No. AV-16. Dealers already having the OTC Basic Set need only purchase the special set to service Avery tractors.



| Tool No. | Description | Tool No. | Description |
|----------|--|----------|---|
| 1003 | Grip-o-matic Puller | *932-L | 1" x 1"-20 Female Adaptor |
| 938 | Push-Puller with 930-D 9 1/4" legs | 924 | 3/4" x 3/4" Female Adaptors (pair) |
| 930-B | 16 1/2" Legs for 938 Push-Puller (pair) | *630-5 | Step Plate 1 3/4" x 1 1/4" |
| 930-C | 22 1/2" Legs for 938 Push-Puller (pair) | *614 | Snap Ring Plier |
| 930-E | 4 1/2" Legs for 938 Push-Puller (pair) | *MA-48 | Heavy Duty Box Wrench 1 1/2" |
| *930-L | 9 1/2" Special Legs for Push-Puller (pair) | *M-28 | Tubular Handle for MA-48 |
| 952-A | Bearing Puller Attachment | *MD-955 | Pilot Bearing Puller |
| *952-3 | Short Bolts for 952-A (pair) | AV-15 | Service Board (only) 3' x 4'. Wt. 23 lbs. |
| 943 | Bearing Cup Pulling Attachment | AV-16 | Avery Service Set (Tools only). Wt. 89 lbs. |

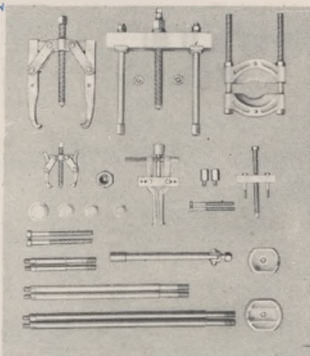
*Included in Special Set No. AV-8. See Page 25.

ESSENTIAL *Service* SET FOR MASSEY-HARRIS TRACTORS

No. MH-20

FACTORY APPROVED

A complete set of pullers developed with the cooperation of Massey-Harris service engineers for service on these tractors. The set at the right together with the two tools shown below will accomplish most of the removal and installing operations involving gears, bearings, couplings, sleeves, shafts, bearing outer races, pinions, etc., on Massey-Harris tractors. This set simplifies service jobs in the shop and in the field and will save its cost many times over in time, labor and parts saved. For more complete details see Bulletin No. MH-49.



| Tool No. | Description | Tool No. | Description |
|----------|---|----------|--|
| 1003 | Grip-o-matic Puller | *17-M | Adaptor 3/4"-18 female x 1 1/2"-13 male (pair) |
| *1001 | Grip-o-matic Puller | *630-6 | Step Plate 1 3/4" x 1 1/4" |
| 938 | Push-Puller with 930-D 9 1/4" legs | *630-6 | Step Plate 1 3/4" x 1 1/4" |
| 930-B | 16 1/2" legs for 938 Push-Puller (pair) | *630-8 | Step Plate 2" x 1 1/4" |
| 930-C | 22 1/2" legs for 938 Push-Puller (pair) | *630-11 | Step Plate 2 1/2" x 2" |
| 930-E | 4 1/2" legs for 938 Push-Puller (pair) | *938-J | Sleeve Puller Extension |
| 952-A | Bearing Puller Attachment | *970-8 | Sleeve Puller Adaptor 3 1/4" |
| *952-MH | Forcing Bolts for 952-A, 3/4"-18 (pair) | *970-13 | Sleeve Puller Adaptor 4 1/2" |
| 943 | Bearing Cup Pulling Attachment | MH-21 | Service Board (only) 3' x 4'. Wt. 27 lbs. |
| *515 | Bearing and Pulley Puller | MH-20 | Massey-Harris Set (Tools only). Wt. 92 lbs. |
| *515-MH | Special Cap Screws for 515 (pair) | | |
| 924 | Female Adaptor 3/4" x 3/4" (pair) | | |
| *949-B | Special 1 1/2" Female Adaptor | | |

*Included in Special Set No. MH-13 See page 25.

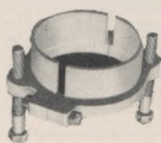


Bearing Holder and Remover

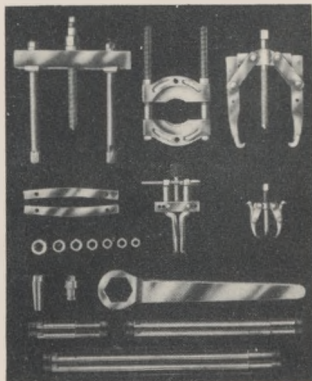
Holds bearing in place so that the main transmission shaft can be pushed through the bearing without cocking. Not included in the set above but is essential in every Massey-Harris shop. See Bulletin MH-47 for detailed description of this job.

No. MH-671—Bearing Holder and Remover. Wt. 1 1/2 lbs.

Differential Bearing Cup Puller No. MH-670



This tool removes both differential bearing cups from the case on Massey-Harris tractors and does this job at a great saving of time. Not included in the set above and must be purchased separately. For complete details on this job see Bulletin MH-47. No. MH-670—Differential Bearing Cup Puller. Wt. 4 lbs.



ESSENTIAL *Service* SET FOR MINNEAPOLIS-MOLINE TRACTORS

No. MM-22

FACTORY APPROVED

Like the other OTC Tractor Service Sets, this set was developed particularly for use on Minneapolis-Moline tractors and farm implements. It will remove the bearings, bushings, gears, shafts, pinions, pulleys and other parts found on the equipment of this make and will operate just as well on other makes of tractors that may be taken in on trade. Hundreds of these sets already in use testify to their popularity among Minneapolis-Moline dealers.

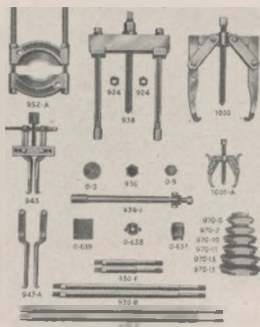
The Service Board on which these tools are mounted is attractively finished and designed as a permanent place to keep these tools. It will serve as an advertisement of your facilities and prevent the loss of tools.

For more detailed information on specific service applications covered by these tools, ask or write for Minneapolis-Moline Service Bulletin No. MM-50.

| Tool No. | Description |
|----------|--------------------------------------|
| 1003 | Grip-o-matic Puller |
| *1001 | Grip-o-matic Puller |
| 938 | Push-Puller with 930-D 9 1/2" legs |
| 930-B | Legs for Push-Puller 16 1/2" (pair) |
| 930-C | Legs for Push-Puller 22 1/2" (pair) |
| 930-E | Legs for Push-Puller 4 1/2" (pair) |
| 952-A | Bearing Pulling Attachment |
| 943 | Bearing Cup Pulling Attachment |
| *RE-9507 | Flywheel Pulling Bars (pair) |
| *RE-9508 | Pilot Bushing Pulling Attachment |
| *MM-98 | Flywheel Wrench for "Z" Flywheel Nut |
| *933 | Bushing Extractor Attachment |

*Included in Special Set No. MM-11. See page 25.

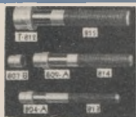
| Tool No. | Description |
|----------|---|
| *920 | Adaptor 5/8"-18 x 3/4"-18 female |
| 924 | Adaptor 5/8"-18 x 3/4"-16 female (pair) |
| *928 | Adaptor 5/8"-18 x 1/2"-14 female |
| *932 | Adaptor 5/8"-18 x 1"-14 female |
| *936 | Adaptor 5/8"-18 x 1 1/4"-12 female |
| *940 | Adaptor 5/8"-18 x 1 1/2"-12 female |
| *630-11 | Step Plate 2" x 2" |
| *630-12 | Step Plate 2 1/2" x 2 1/4" |
| *P-61 | Reversible Push-Puller Ratchet |
| *M-28 | Tubular Handle for P-61 |
| MM-22 | Minneapolis-Moline Set, Tools only, Wt. 10 1/2 lbs. |
| MM-23 | Service Board (Only) 3' x 4' Wt. 27 lbs |



ESSENTIAL *Service* SET FOR OLIVER TRACTORS No. OR-17

FACTORY APPROVED

Developed especially for the OLIVER CORP. to remove and install gears, bearings, sleeves, pinions, wheels, pulleys, bearing outer races, shafts, etc. on Oliver tractors. This set will do most of these jobs without damage to costly parts and at a saving of time and labor that will pay for the set in less than one year. Will work equally well on other makes and models of tractors that may be taken in on trade. See Bulletin O-45 for more complete details.

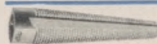


BUSHING DRIVER SET NO. OR-7

Consists of 3 mandrels and 4 collars for removing and installing bushings on Oliver governors, con

rods, rocker arms. Includes 813, 814, 815, 804A, 807B, 809A and T-812.

No. OR-7—Bushing Set. Wt. 5 lbs.



MODEL 60 REAR GOVERNOR

NOR BUSHING EXTRACTOR No. 933

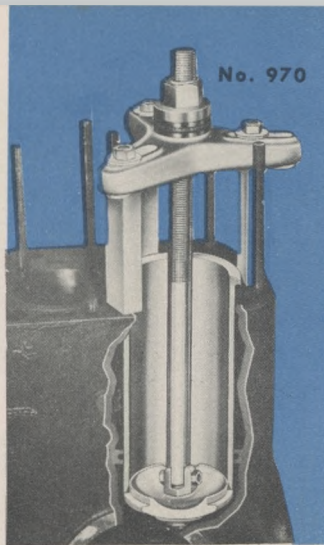
For use with the 938 Push-Puller and 943-10 Reducing Adaptor both of which are included in the OR-17 essential tool set. A necessary tool for Oliver service.

No. 933—Bushing Extractor. Wt. 1 1/4 lbs.

| Tool No. | Description |
|----------|--|
| 1003 | Grip-o-matic Puller |
| *1001 | Grip-o-matic Puller |
| 938 | Push-Puller with 930-D 9 1/2" legs |
| 930-B | Legs for Push-Puller 16 1/2" (pair) |
| 930-C | Legs for Push-Puller 22 1/2" (pair) |
| 930-E | Legs for Push-Puller 4 1/2" (pair) |
| *938-J | Swivel Sleeve Puller Attachment |
| 952-A | Bearing Pulling Attachment |
| 943 | Bearing Cup Pulling Attachment |
| *943-A1 | Long Jaws for 943 Attachment |
| 924 | Threaded Adaptor 5/8"-18 x 3/4"-16 female (pair) |
| *936 | Threaded Adaptor 5/8"-18 x 1 1/4"-12 female |
| *630-1 | Step Plate Adaptor 1" x 1 1/4" |
| *OR-9 | 1"-14 Male Plug Adaptor |

| Tool No. | Description |
|----------|---|
| *O-3 | Clutch Spring Compressor Plate |
| *O-636 | Centering Nipple |
| *O-637 | Bull Pinion Bearing Adaptor |
| *O-638 | Pump Impeller Adaptor |
| *O-639 | Sliding Gear Spacer |
| *970-0 | Sleeve Puller Adaptor Plate 3 1/8" (Model 60) |
| *970-2 | Sleeve Puller Adaptor Plate 3 1/4" |
| *970-10 | Sleeve Puller Adaptor Plate 4 1/4" |
| *970-11 | Sleeve Puller Adaptor Plate 4 1/2" |
| *970-13 | Sleeve Puller Adaptor Plate 4 1/2" |
| *970-15 | Sleeve Puller Adaptor Plate 4 3/4" |
| OR-14 | Service Board (only) 3' x 4' Wt. 28 lbs. |
| OR-17 | Oliver Service Set, Tools only. Wt. 98 lbs. |

*Included in Special Set No. OR-12. See page 25.



No. 970

Universal Cylinder Liner Puller

Will pull the cylinder sleeves on more than 200 makes and models of trucks and tractors. This tool is adjustable to provide clearance regardless of the position of cylinder studs and to simplify centering the tool over the bore. Adaptor plates can be applied from the top. The long, fine threaded screw and a heavy thrust bearing eliminate friction and provide a steady pull. Recommended and approved by Allis-Chalmers, Caterpillar, Case, International, Oliver, Massey-Harris and others.

No. 970—Universal Sleeve Puller. Wt. 21 lbs.

NUMBER 970 FITS THE FOLLOWING MODELS

| Year and Model | Plate Required | Year and Model | Plate Required |
|---------------------------------|----------------|--|----------------|
| ALLIS-CHALMERS | | | |
| B..... | 970-3 | FBB-279, A-4, A-5, A-6, C-50, C-50F, C-50T, CS-50, CS-50T..... | 970-6 |
| RC, C..... | 970-4 | FBB-3, FBB-298, D-50, DR-60, DS-50, D-500, DR-500, DS-500, D-246T, DS-246T, DR-246T, D-246F, A-5, A-6, C-55, C-55F, C-55T, C-60, C-60T, 970-7 Red 361, Red 401, KB-8 970-10K 63, 94, 103, 54, 54-C, 74, 74-C, 104-C..... | 970-11 |
| W, C, W, WF, W-25..... | 970-9 | Red 450..... | 970-12K |
| U, M, UM, UC..... | 970-13 | FD, A-7, A-7F..... | 970-13 |
| U, WM, U-40, UC, 42 Patrol..... | 970-14 | FE-A8, A-8F, AR-626, F..... | 970-17 |
| E, A..... | 970-15 | K-7, BLD-269, KBS-7..... | 970-7K |
| E, E60, L90, L, LO, KO..... | 970-19 | W-9, WD-9..... | 970-9W |
| SO..... | 970-23 | | |

J. I. CASE

| | |
|--|---------|
| Combine & Baler Engs..... | 970-1 |
| "VA" Series..... | 970-3 |
| S, SC, SO, SI, SE, "V" Comb. SE Self Prop. Comb..... | 970-5 |
| C, CC, CV, CH, CC-S, CE "p" Comb, CI Mod, DE Comb, DE Self Prop. Comb., CO, CI, D..... | 970-8 |
| L, LI, LE, L Unit..... | 970-14 |
| V Series..... | 970-1A |
| RC..... | 970-3RC |

CATERPILLAR

| | |
|--------------------------|---------|
| RD-4, Model 12..... | 970-11 |
| RD-6, RD-7, RD-8..... | 970-23 |
| 8 & 12 Cyl. Diesels..... | 970-23C |
| OLIVER-CLETRAC | |
| BD..... | 970-5 |
| 40-D, DD..... | 970-12 |
| 80-D, FD..... | 970-17 |

INTERNATIONAL TRUCKS

| | |
|--|--------|
| FAB-241, D-35, DS-35, D-35-B, D-216-T, DS-216-T, D-216-F, K-6, KS-6, K-6T, K-6F, K-6B, FAC-241 engine..... | 970-4 |
| FAB-2, B-3..... | 970-4B |
| FAB-259, D-40, DS-40, D-400, DS-400, KF, KS-7, K-700-E, KS-700-E, FAC-259 engine..... | 970-5 |
| FAB-223, B-4, C-35, C-35T, CS-35, CS-35T, C-35B, CS-35B, C-40, C-40F, C-40T, CS-40, CS-40T, BL11-250..... | 970-5C |

MASSEY-HARRIS

| | |
|------------------------|--------|
| 44, 44K..... | 970-8 |
| 4 Wheel Drive, UP..... | 970-9 |
| 55, 55K..... | 970-13 |

INTERNATIONAL TRACTOR

| | |
|---|---------|
| F-12, F-14, AV, BN, U-2..... | 970-1 |
| A, B..... | 970-1A |
| Farmall, H..... | 970-4H |
| Farmall, F-20, T-20, U-7, T-40, W-40, P-40..... | 970-7 |
| 10-12, 20, 200, W-30, Farmall, M..... | 970-8M |
| 1-30, P-30, F-30..... | 970-11 |
| 15-30, 30, 300, TD-35..... | 970-13 |
| 22-36, TD-40, PD-80, TD-18, UD-18..... | 970-15 |
| TD-14..... | 970-15K |

IS-MOLINE

| | |
|---|--------|
| 12-20, 17-28, KT, TY, MT, 11-20, 13-25, DU..... | 970-11 |
| FTA..... | 970-14 |
| 17-30A..... | 970-15 |
| 27-42, 17-30B..... | 970-16 |

OLIVER

| | |
|---|--------|
| 70 Rowcrop, 70 Std. Model 60, 66HC, 77HC..... | 970-2 |
| 66KD, 77KD, 88HC..... | 970-5 |
| 88KD..... | 970-7 |
| 814 Rowcrop, 18-28..... | 970-10 |
| 28-44, A-3-S..... | 970-15 |

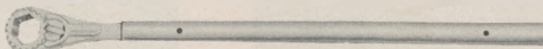
ADAPTOR PLATES



A complete range of Adaptor Plates is available to adapt the Universal Sleeve Puller to practically any make of truck or tractor. Adaptors are listed below. Many popular makes and models are listed at the right to facilitate selection of the right adaptor plate.

| No. | Size | Wt. Lbs. | No. | Size | Wt. Lbs. |
|---------------|--------|----------|---------------|--------|----------|
| 970-1..... | 3" | 1 1/2 | *970-10K..... | 4 1/2" | 2 3/4 |
| 970-1A..... | 3" | 1 1/2 | 970-11..... | 4 1/2" | 2 3/4 |
| 970-2..... | 3 1/4" | 1 1/2 | 970-12..... | 4 1/2" | 2 3/4 |
| 970-2F..... | 3 1/4" | 1 1/2 | *970-12K..... | 4 1/2" | 2 3/4 |
| 970-3..... | 3 1/4" | 1 1/2 | 970-13..... | 4 1/2" | 2 3/4 |
| *970-3RC..... | 3 1/4" | 1 1/2 | 970-14..... | 4 1/2" | 3 1/2 |
| 970-0..... | 3 1/4" | 1 1/2 | 970-15..... | 4 1/2" | 3 1/2 |
| 970-4..... | 3 1/4" | 1 1/2 | *970-15K..... | 4 1/2" | 3 1/2 |
| 970-4B..... | 3 1/4" | 1 1/2 | 970-16..... | 4 1/2" | 3 1/2 |
| *970-4H..... | 3 1/4" | 1 1/2 | 970-17..... | 5" | 3 3/4 |
| 970-5..... | 3 1/4" | 1 1/2 | 970-18..... | 5 1/4" | 4 |
| *970-5C..... | 3 1/4" | 1 1/2 | 2 970-19..... | 5 1/4" | 4 1/2 |
| 970-6..... | 3 1/4" | 2 | 970-20..... | 5 1/4" | 4 1/2 |
| 970-7..... | 3 1/4" | 2 | 970-21..... | 5 1/2" | 4 1/2 |
| *970-7K..... | 3 1/4" | 2 | 970-22..... | 5 1/2" | 4 1/2 |
| 970-8..... | 3 1/4" | 2 1/4 | 970-23..... | 5 1/4" | 5 |
| *970-8M..... | 3 1/4" | 2 1/4 | 970-23C..... | 5 1/4" | 5 |
| 970-9..... | 4" | 2 3/4 | 970-23K..... | 5 1/4" | 5 |
| *970-9W..... | 4 1/4" | 2 3/4 | 970-24..... | 5 1/4" | 6 |
| 970-10..... | 4 1/4" | 2 3/4 | 970-25..... | 6" | 6 1/4 |

*Steel plates for dry sleeves



REVERSIBLE RATCHET No. P-61

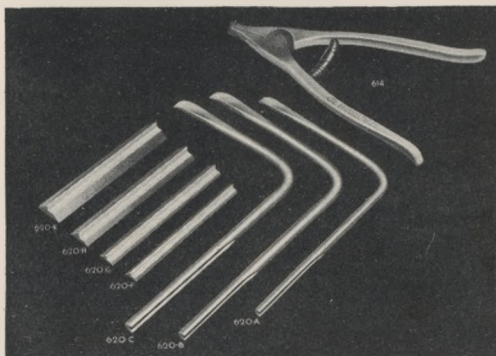
A reversible ratchet with a 1 1/4" hexagon opening is recommended for use with the No. 970 Universal Sleeve Puller above. This ratchet speeds up the sleeve pulling operation 50% especially when pulling dry sleeves and the pull is hard and steady all the way. This ratchet can also be used on OTC Push-Pullers 930 and 938 and for other purposes as well. A tubular steel extension handle to provide extra leverage is available for use with this ratchet. See Pages 8 and 54.

No. P-61—Reversible Ratchet. (Head only) Wt. 5 1/2 lbs.

No. M-28—Tubular Handle 24". Wt. 2 3/4 lbs.



SNAP RING SERVICE SET NO. 620



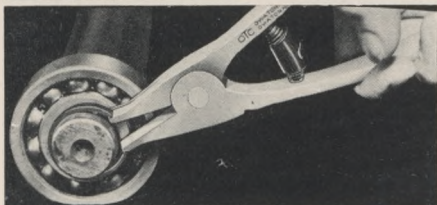
This set is designed and built especially to remove the contracting snap ring found on shafts and the expanding snap rings found in bores or housings. The expanding type snap rings found in bores is especially difficult to remove when it is located three or four inches from the end of the bore. OTC Snap Ring tools simplify this job a great deal and will prove to be time and labor savers in every shop servicing trucks and tractors.

| Tool No. | Description |
|----------|--|
| 614 | Snap Ring Pliers (only). Wt. 10 oz. |
| 620-A | Lifting Cam $\frac{1}{4}$ " |
| 620-B | Lifting Cam $\frac{3}{16}$ " |
| 620-C | Lifting Cam $\frac{1}{2}$ " |
| 620-F | Wedge $\frac{1}{16}$ " |
| 620-G | Wedge $\frac{1}{8}$ " |
| 620-H | Wedge $\frac{3}{16}$ " |
| 620-K | Wedge $\frac{1}{2}$ " |
| 620 | Snap Ring Set in box. Wt. $2\frac{3}{4}$ lbs. |
| 620-P | Snap Ring Set less Pliers. Wt. $2\frac{1}{4}$ lbs. |
| 620-S | Snap Ring Box (only). Wt. $1\frac{1}{4}$ lbs. |

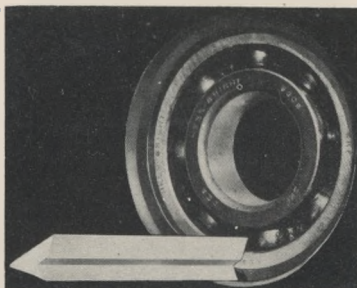


This end view shows the cam and wedge in proper position.

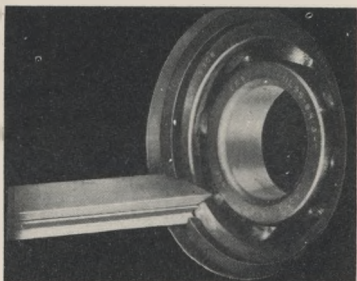
This end view shows how the cam lifts the end of the Snap Ring.



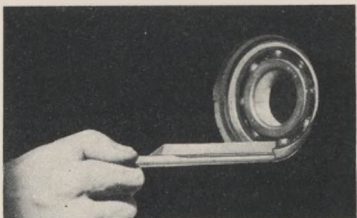
The picture above shows the operation of the No. 614 Snap Ring Pliers on contracting type Snap Rings.



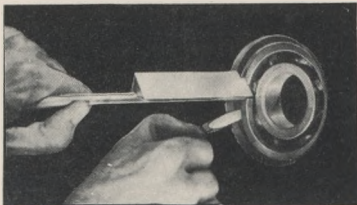
Select the proper size wedge and insert between snap ring gap as shown above.



Place the lifting cam in the channel of the wedge, rounded side to the back, with the sharp edge of the cam engaging the point of the snap ring.



The picture above shows the position of tools when in position to operate. Turn cam to lift out end of snap ring.



When end of snap ring is lifted pry out with the blade end of a second lifting cam.



MAGNETO SERVICE TOOL SET No. MT-31A



A versatile set of tools that will handle a majority of the service operations on Wico, Fairbanks-Morse, International Harvester, Splitdorf and other makes and models of magnetos. The set contains 37 items including the metal case and is the most complete set of its kind on the market today. Many of the tools included are universal tools that will work on generators, starters and other electrical equipment as well.

| Tool No. | Description | Tool No. | Description |
|----------|--|----------|--|
| MT-1 | Bearing Installation Tool for FM-"RV", "R2" and Splitdorf "46" and "CD" | MT-22 | Gear Removal and Installation Tool (Use with 813) for "RV" |
| MT-2 | Impulse Coupling Spring Tool for FM-"RV", "R2", Wico "AP" and "C" | MT-24 | Fiber Gear Removal Tool for Splitdorf "CD" |
| MT-4 | Impulse Coupling Nut Wrench for FM-"RV" and "R2" | MT-26 | $\frac{1}{4}$ " Tee Socket Wrench |
| MT-5 | Needle Bearing Holding Tool | MT-27 | $\frac{3}{8}$ " Tee Socket Wrench |
| MT-6 | Cam Stud Installing Tool | MT-50 | Impulse Coupling Puller for International "H-1", "H-4", "F-4", "F-6" |
| MT-8 | Impulse Coupling Puller for FM-"RV" and "R2", Splitdorf "CD" and "46" | MT-60 | Snap Ring Plier |
| MT-9 | Outer Race Driver for FM "RV" | MT-61 | Snap Ring Lifting Tool or Pick (Use with MT-60) |
| MT-11 | Installing and Removal Tool | 120 | Impulse Coupling Nut Socket for Wico "AP" |
| MT-12 | Installation Tool, use with 813 | 122 | Impulse Coupling Nut Socket for Splitdorf "CD" |
| MT-14 | Impulse Coupling Spring Tool (Use with MT-2) for Wico "AP" | 124 | Impulse Coupling Nut Socket for Wico "C" |
| MT-15 | Impulse Coupling Spring Tool (Use with MT-2) for FM-"RV" and "R2" | 1001 | Grip-o-matic Puller |
| MT-17 | Removal and Installation Tool (Use with 813) for Wico Rotor Needle Bearing | 950 | Bearing Pulling Attachment |
| MT-18 | Removal and Installation Tool (Use with 813) for "R2" Cam Bearing and Splitdorf "CD" Felt Retainer | 802 | Installing and Removing Collar for Model X |
| MT-19 | Outer Race Puller for "RV" and "R2" | 864 | Thickness Gauge |
| MT-20 | Impulse Coupling Lug Wrench for "R2", "RV", "CD", "46" and Wico | 813 | Driving Mandrel |
| MT-21 | Tee Handle (Use with MT-2 and MT-4) | SS-42 | Screw Driver $\frac{1}{4}$ " Bit |
| | | JD-10 | Honing Stone |
| | | PT-16 | Soft Tip Hammer |
| | | MP-2 | Bearing Removal Punch |
| | | TP-8 | Taper Punch $\frac{1}{4}$ " Bit |
| | | MT-90 | Metal Case $9\frac{1}{2}$ " x $14\frac{1}{4}$ " x 2" |
| | | MT-31A | Magneto Service Set in Metal Case. Wt. 13 lbs. |

MAGNETO PLIER and PICK SET NO. MT-64

This combination of tools was built especially for removing wire snap rings from magneto armature shafts. The plier picks up the ends of the snap ring and the pick is used to pry it out of the groove. This set is also included in the MT-31A set above.

No. MT-60—Magneto Snap Ring Plier

No. MT-61—Magneto Snap Ring Pick

No. MT-64—Magneto Snap Ring Plier and Pick Set. Wt. 6 oz.





PISTON RING PLIER No. 615



A specially designed plier built to simplify the removal and replacement of piston rings of large diameters. These pliers provide sufficient leverage to handle these rings without twisting or breaking. The milled slots in the nose are designed to receive rings which are diagonally cut, step-cut or straight-cut without distortion and do not permit the ring to slip. No truck or tractor service shop should be without this handy tool. It saves time and reduces damage to rings.

No. 615—Tractor Piston Ring Pliers. Wt. $\frac{3}{4}$ lb.
Packed six to a carton.

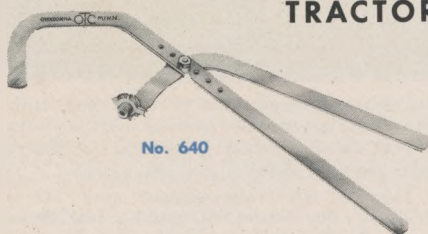
DIESEL RING COMPRESSOR

No. HC-686

This compressor has been designed especially for use on International Harvester Industrial Tractor "14" and "18" Diesel engines. This tool is approved by IHC and is recommended to all International industrial dealers and users. It is used on the factory assembly line and provides the best method for compressing these rings. Operation: Place the connecting rod with piston in a vise with brass jaws. Assemble the ring compressor over the rings and press the two halves of the tool together until the clips snap in place.



No. HC-686—Ring Compressor. Wt. 3 lbs.



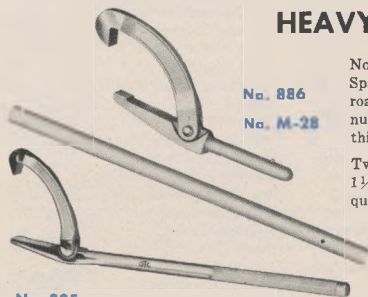
No. 640

TRACTOR RING GROVE CLEANER

Another handy truck and tractor tool that has proven its value in thousands of shops. This Ring Groove Cleaner has a cutter with four blades to handle ring grooves $\frac{1}{8}$ ", $\frac{3}{16}$ ", $\frac{1}{4}$ " and $\frac{5}{16}$ " and will clean grooves slightly over these sizes. The handles are adjustable from 3" to 6 $\frac{3}{4}$ " and will handle any piston within those diameters. This adapts it to practically every make of truck or tractor on the market.

No. 640—Ring Groove Cleaner. Wt. 1 $\frac{1}{2}$ lbs.

No. 640-C—Cutter (only) for 640.



No. 886

No. M-28

No. 885

HEAVY DUTY SPANNER WRENCHES

No truck or tractor service shop is complete without an OTC Spanner Wrench. Built especially for work on tractors, trucks, road machinery, power shovels, etc. Wherever turret adjusting nuts, packing gland nuts and other turret type nuts are used this tool is indispensable.

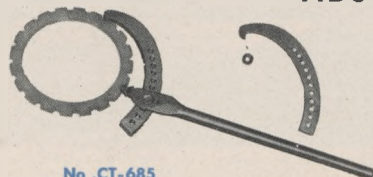
Two sizes are available providing a range of adjustments from 1 $\frac{1}{2}$ " to 6". The larger size No. 886 is a stub type wrench requiring the use of a Tubular Handle No. M-28.

No. 885—Spanner Wrench 1 $\frac{1}{2}$ " to 4", length 19".
Wt. 3 lbs.

No. 886—Spanner Wrench 3" to 6" (less Tubular Handle). Wt. 5 lbs.

No. M-28—Tubular Handle 24" long. Wt. 2 $\frac{3}{4}$ lbs.

ADJUSTABLE SPANNER WRENCH



No. CT-685

Two interchangeable bones, one $\frac{3}{8}$ " thick to handle heavy turret nuts, the other $\frac{1}{4}$ " thick for thin adjusting nuts and both having eleven adjustments are features of this new OTC Spanner Wrench. The handle is 23" long.

This wrench takes the place of 15 or 20 fixed size spanner wrenches and is especially efficient on Caterpillar tractors. It eliminates the necessity for carrying a great deal of weight and bulk on each service job and conserves tool room.

No. CT-685—Adjustable Spanner Wrench. Wt. 10 $\frac{1}{2}$ lbs.



MIDGET HEXAGON SOCKETS

$\frac{1}{4}$ " Square Drive

Extremely thin, hot forged and fully heat-treated these new OTC sockets are just the thing for electrical, ignition, magneto, generator, carburetor and radio work on automobiles, trucks, tractors, aircraft, etc. Also very

practical in refrigeration maintenance. They are accurately machined and much stronger than their size would indicate. Seven sockets with hexagon openings are available in the $\frac{1}{4}$ " service.

| No. | Opening | Length | Wt. per Doz. In Ozs. |
|------|------------------|--------|-------------------------|
| M-8 | $\frac{1}{4}$ " | 1" | 6 |
| M-9 | $\frac{5}{16}$ " | 1" | 6 |
| M-10 | $\frac{3}{8}$ " | 1" | 7 |
| M-11 | $\frac{7}{16}$ " | 1" | 8 |
| M-12 | $\frac{1}{2}$ " | 1" | 8 |
| M-14 | $\frac{3}{8}$ " | 1" | 10 |
| M-16 | $\frac{1}{2}$ " | 1" | 12 |

MIDGET EIGHT POINT SOCKETS



$\frac{1}{4}$ " Square Drive

OTC Midget eight point sockets are built of Chrome Alloy steel as are the hexagon sockets above. They are thin with straight walls and clean-cut, hot forged openings. They handle the square nuts found so often in electrical, refrigeration and radio work and are indispensable for this purpose. Three sizes in the most popular openings are available in the $\frac{1}{4}$ " drive series.

| No. | Opening | Length | Wt. per Doz. in Ozs. |
|------|------------------|--------|-------------------------|
| S-8 | $\frac{1}{4}$ " | 1" | 6 |
| S-10 | $\frac{5}{16}$ " | 1" | 6 |
| S-12 | $\frac{3}{8}$ " | 1" | 8 |

MIDGET SOCKET SET No. M-81

$\frac{1}{4}$ " Square Drive

A carefully selected assortment of sockets and handles are included in this set to provide a complete range of opening sizes and appropriate handles to fit. The set is designed to handle a majority of applications in electrical, radio and refrigeration work at a substantial saving of time and energy.

The set includes seven hexagon sockets: M-8, $\frac{1}{4}$ "; M-9, $\frac{5}{16}$ "; M-10, $\frac{3}{8}$ "; M-11, $\frac{7}{16}$ "; M-12, $\frac{1}{2}$ "; M-14, $\frac{3}{8}$ "; and M-16, $\frac{1}{2}$ ";; three 8-point Sockets: S-8, $\frac{1}{4}$ "; S-10, $\frac{5}{16}$ "; and S-12, $\frac{3}{8}$ ";; with three handles to fit; H-75 Flex Handle and Tee Bar, H-78 Spinner Handle and H-70, 2" Extension all enclosed in a substantial Metal Case 7" x 3" x 1 $\frac{1}{2}$ ".

Automotive, tractor, aircraft and refrigeration maintenance men will find this set ideal for every day use.

No. M-81—Midget Socket Set. Wt. 1 $\frac{1}{2}$ lbs.
No. M-90—Metal Case (only).



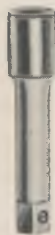
EXTENSION No. H-70

$\frac{1}{4}$ " Square Drive

One extension, 2" overall is available in the $\frac{1}{4}$ " drive service. It provides that additional clearance so often needed to avoid obstructions. It can be used to advantage with either the No. H-75 Flex Handle or with the H-78 Spinner Handle.

No other extensions are necessary since ample clearance can be obtained using this extension with other handles.

No. H-70—Extension 2" long. Wt. 2 ozs.

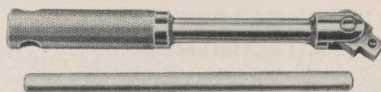


SPINNER HANDLE No. H-78

$\frac{1}{4}$ " Square Drive

A necessity in every Midget Socket Set, this tool is approximately six inches long overall with a plastic, insulated grip. This tool speeds up electrical work considerably since plenty of power can be exerted with it on small nuts.

No. H-78—Spinner Handle. Wt. 3 ozs.

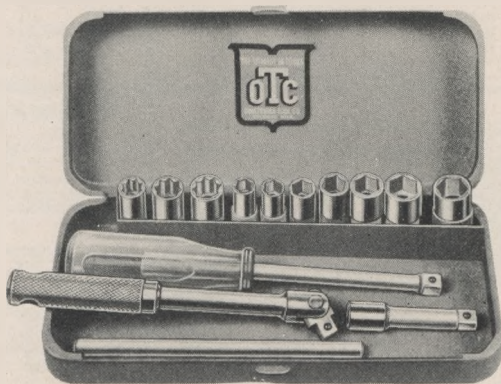


FLEX HANDLE No. H-75

$\frac{1}{4}$ " Square Drive

A well-balanced Midget Flex Handle that should be included in every $\frac{1}{4}$ " Drive Set. Sturdily built of Chrome Alloy steel and fully heat-treated, this tool has ample strength for any midget nut turning job. A "T" or cross bar is furnished with this handle so it can be used as a Tee handle when occasion demands. It is 6" overall.

No. H-75—Flex Handle. Wt. 5 ozs.





JUNIOR SOCKETS 3/8" SQUARE DRIVE

12 POINT SOCKETS

Combining great strength, thin walls and light weight,

OTC Junior Sockets are unsurpassed in the field. They are ideally suited for work on cranks, manifolds, starters, generators, etc., and are indispensable to any mechanic servicing automobiles, trucks, tractors, aircraft, refrigerators, etc. They are hot-forged from Chrome Vanadium steel, accurately machined, fully heat-treated and beautifully finished.



| Wrench No. | Opening Size | Length | Outside Diameter | | Weight per Doz. Lbs. Ozs. |
|------------|--------------|--------|------------------|-----------|---------------------------|
| | | | Socket End | Drive End | |
| 212 | 3/8" | 1 1/2" | 1 1/2" | 4 3/4" | 12 |
| 214 | 7/16" | 1 1/2" | 1 1/2" | 4 3/4" | 12 |
| 216 | 1/2" | 1 1/2" | 1 1/2" | 4 3/4" | 12 |
| 218 | 9/16" | 1 1/2" | 1 1/2" | 4 3/4" | 12 |
| 220 | 5/8" | 1" | 1 1/2" | 4 3/4" | 12 |
| 222 | 11/16" | 1 1/2" | 1 1/2" | 4 3/4" | 1 8 |
| 224 | 3/4" | 1 1/2" | 1 1/2" | 4 3/4" | 1 8 |

Packed 12 to a carton.

HEXAGON SOCKETS

3/8" SQUARE DRIVE

Popular sizes of OTC Junior Sockets are also available in Hexagon sizes. Particularly popular on crankcase and starter work where sockets have a tendency to wear due to grit. Will maintain accuracy longer than the 12 point type and are practical in all kinds of maintenance work.



| Wrench No. | Opening Size | Length | Outside Diameter | | Weight per Doz. Lbs. Ozs. |
|------------|--------------|--------|------------------|-----------|---------------------------|
| | | | Socket End | Drive End | |
| D-214 | 7/16" | 1 1/2" | 1 1/2" | 4 3/4" | 12 |
| D-216 | 1/2" | 1 1/2" | 1 1/2" | 4 3/4" | 12 |
| D-218 | 9/16" | 1 1/2" | 1 1/2" | 4 3/4" | 12 |
| D-220 | 5/8" | 1" | 1 1/2" | 4 3/4" | 12 |
| D-222 | 11/16" | 1 1/2" | 1 1/2" | 4 3/4" | 1 8 |
| D-224 | 3/4" | 1 1/2" | 1 1/2" | 4 3/4" | 1 8 |

Packed 12 to a carton.

PHILLIPS SCREW DRIVER ATTACHMENTS

3/8" Square Drive



For use with any Junior 3/8" square drive socket attachment, these screw driver attachments will be found useful on automobile, truck, aircraft and other equipment. The increasing popularity of Phillips screws make these attachments necessary in every mechanic's tool box. Three sizes are available as shown in the table below. For attachments in the 1/2" drive service see Page 48.

| Tool No. | Point No. | Length | Wt. |
|----------|-----------|--------|-------|
| H-277 | 2 | 2 1/2" | 2 oz. |
| H-278 | 3 | 2 1/2" | 2 oz. |
| H-279 | 4 | 2 1/2" | 2 oz. |

DEEP 12 POINT SOCKETS 3/8" SQUARE DRIVE

For use in automotive, truck, tractor and aircraft maintenance OTC Deep Junior Sockets are ideal for removing nuts where the bolt projects through the nut and the shallow socket cannot be used. Sturdily built with thin walls and accurate as to size.



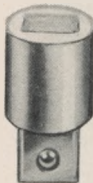
| Wrench No. | Opening Size | Length | Outside Diameter | | Weight per Doz. Lbs. Ozs. |
|------------|--------------|--------|------------------|-----------|---------------------------|
| | | | Socket End | Drive End | |
| L-212 | 3/8" | 2" | 1 1/2" | 4 3/4" | 12 |
| L-214 | 7/16" | 2" | 1 1/2" | 4 3/4" | 12 |
| L-216 | 1/2" | 2" | 1 1/2" | 4 3/4" | 12 |
| L-218 | 9/16" | 2" | 1 1/2" | 4 3/4" | 1 8 |
| L-220 | 5/8" | 2" | 1 1/2" | 4 3/4" | 1 8 |
| L-222 | 11/16" | 2 1/2" | 1 1/2" | 4 3/4" | 2 4 |
| L-224 | 3/4" | 2 1/2" | 1 1/2" | 4 3/4" | 2 4 |
| L-226 | 13/16" | 2 1/2" | 1 1/2" | 4 3/4" | 2 4 |

DEEP 8 POINT SOCKETS 3/8" SQUARE DRIVE

| Wrench No. | Opening Size | Length | Outside Diameter | Weight per Doz. Lbs. Ozs. |
|------------|--------------|--------|------------------|---------------------------|
| S-212 | 3/8" | 2" | 1 1/2" | 2 oz. |
| S-214 | 7/16" | 2" | 1 1/2" | 2 oz. |
| S-216 | 1/2" | 2" | 1 1/2" | 3 oz. |

Packed 12 to a carton.

REDUCING ADAPTORS



These adaptors permit complete interchangeability between drive sockets and 1/2" drive handles or 1/2" drive sockets and 3/8" drive handles. This is a distinct advantage in many cases where obstructions do not permit using standard equipment. These adaptors are hot-forged of Chrome alloy steel, accurately machined, fully heat-treated and beautifully finished.

| Tool No. | Female End | Male End | Wt. |
|----------|------------|----------|-------|
| D-1216 | 3/8" | 1/2" | 2 oz. |
| D-1612 | 1/2" | 3/8" | 2 oz. |

UNIVERSAL SOCKETS 3/8" Square Drive

Short-coupled, thin wall OTC Universal Sockets that break over at right angles are the choice of better mechanics everywhere. Exceptionally useful for aircraft, automotive, truck and refrigeration maintenance. They work on manifolds, starters, carburetors, generators and other inaccessible places.



| Wrench No. | Opening Size | Overall Length | Outside Diameter | | Weight per Doz. Lbs. Ozs. |
|------------|--------------|----------------|------------------|-----------|---------------------------|
| | | | Socket End | Drive End | |
| U-212 | 3/8" | 1 1/4" | 9/16" | 1 1/4" | 1 8 |
| U-214 | 7/16" | 1 1/4" | 9/16" | 1 1/4" | 1 8 |
| U-216 | 1/2" | 1 1/4" | 9/16" | 1 1/4" | 1 8 |
| U-218 | 9/16" | 1 3/4" | 9/16" | 1 1/4" | 1 8 |
| U-220 | 5/8" | 1 3/4" | 9/16" | 1 1/4" | 1 8 |
| U-222 | 11/16" | 1 3/4" | 9/16" | 1 1/4" | 1 8 |
| U-224 | 3/4" | 1 3/4" | 1" | 1 1/4" | 2 4 |

Packed 12 to a carton.

24 TOOTH RATCHET $\frac{1}{8}$ " SQUARE DRIVE

Like its counterpart in the $\frac{1}{8}$ " drive series this Junior 24 Tooth Ratchet is just as sturdily built and will absorb a proportionate amount of hard work. Completely enclosed. It is a smooth operating ratchet with an exceptionally short throw.

FLEX RATCHET $\frac{1}{8}$ " SQUARE DRIVE

A new idea in Ratchets that has the enthusiastic support of everyone who has used it. The ratchet with the flexible head containing 24 teeth, fully enclosed. A smooth operating, sturdy tool that fills an urgent need in every tool box.

JUNIOR FLEX HANDLES $\frac{1}{8}$ " SQUARE DRIVE

One of the handiest parts of a socket set. The OTC Junior Flex Handle is built of Chrome Vanadium steel and heat-treated to give rigidity and toughness. It is also light and well balanced—a veritable little giant in this series.

SPEED HANDLES $\frac{1}{8}$ " SQUARE DRIVE

Like all other Junior handles these speeders are made from Chrome Vanadium steel and heat-treated to prevent bending and twisting. Made of $\frac{3}{8}$ " round, light and easy to use, yet strong enough to withstand severe strain. The knob operates on a ball bearing to provide freedom of action and prevent sticking.

EXTENSIONS $\frac{1}{8}$ " SQUARE DRIVE

| No. | Length | Drive | Wt. |
|-------|--------|-----------------|-------|
| H-270 | 1½" | $\frac{3}{8}$ " | 2 oz. |
| H-271 | 3" | $\frac{3}{8}$ " | 3 oz. |
| H-272 | 6" | $\frac{3}{8}$ " | 4 oz. |
| H-273 | 10" | $\frac{3}{8}$ " | 6 oz. |

SLIDING TEE HANDLE $\frac{1}{8}$ " SQUARE DRIVE

Used with an extension or separately with individual Junior Sockets this OTC handle is a popular one in all kinds of work. The head slides easily yet a friction ball holds it in the desired position. A general utility handle that is very practical.

JUNIOR UNIVERSAL JOINT

$\frac{1}{8}$ " SQUARE DRIVE

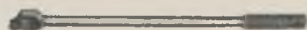
Used with OTC Junior sockets on an extension or speed handle this Universal Joint will provide accessibility to many difficult jobs. All parts are made of Chrome Vanadium steel and heat-treated to give strength. It will break over at nearly right angles enabling the operator to loosen or tighten a nut without disassembling the tool. No. H-289—Universal Joint, 1½" overall. Wt. 2 oz.



| No. | Length | Head Diam. | Head Thickness | Drive | Wt. |
|-------|--------|------------|------------------|-----------------|--------|
| H-261 | 6½" | 1½" | $\frac{3}{16}$ " | $\frac{3}{8}$ " | 10 oz. |



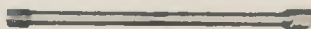
| No. | Length | Head Diameter | Head Thickness | Drive | Wt. |
|-------|--------|---------------|------------------|-----------------|--------|
| H-260 | 8" | 1½" | $\frac{3}{16}$ " | $\frac{3}{8}$ " | 14 oz. |



| No. | Length | Drive | Wt. |
|-------|--------|-----------------|-------|
| H-275 | 8" | $\frac{3}{8}$ " | 9 oz. |



| No. | Length | Sweep Radius | Drive | Wt. |
|-------|--------|--------------|-----------------|--------|
| H-283 | 15" | 3¼" | $\frac{3}{8}$ " | 13 oz. |
| H-282 | 18" | 3¼" | $\frac{3}{8}$ " | 14 oz. |



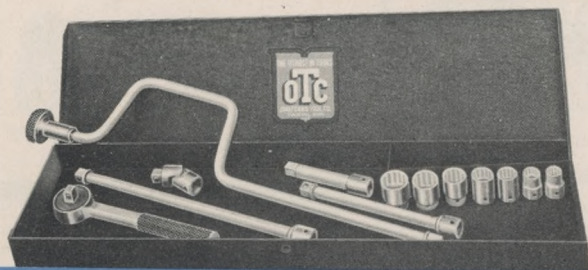
Up-set forged on each end and built of Chrome Vanadium steel, heat-treated to prevent twisting and bending, these extensions are strong and rigid to withstand hard use. Furnished in five popular lengths to provide accessibility to all types of maintenance operations.



| No. | Length | Head Diam. | Drive | Wt. |
|-------|--------|-----------------|-----------------|-------|
| H-287 | 8" | $\frac{3}{4}$ " | $\frac{3}{8}$ " | 6 oz. |



**JUNIOR
UNIVERSAL
JOINT H-289**



NUMBER SF-240 JUNIOR SET

$\frac{3}{8}$ " SQUARE DRIVE

14 PIECES

A complete combination of Junior sockets and handles that will fit perfectly into the tool kit of every maintenance man regardless of the kind of work he specializes in. It consists of seven sockets, 212, $\frac{3}{8}$ " 214, $\frac{1}{2}$ " 216, $\frac{1}{2}$ " 218, $\frac{3}{8}$ " 220, $\frac{3}{8}$ " 222, $\frac{1}{2}$ " 224, and six handles, H-283 Speed Handle, H-261 Ratchet, H-289 Universal Joint, H-271, 3" Extension, H-272, 6" Extension, H-273, 10" Extension in the H-290 metal case which is 19" x 5" x 1 $\frac{1}{2}$ ".

This set will appeal especially to automotive, aircraft and refrigeration maintenance men.

No. SF-240—Junior Socket Set in Metal Case. Wt. 6 lbs.



13 PIECES

Another set that will appeal to automotive and aircraft maintenance men. It carries a complete range of Junior sockets together with a popular assortment of handles. It consists of seven sockets, 212, $\frac{3}{8}$ " 214, $\frac{1}{2}$ " 216, $\frac{1}{2}$ " 218, $\frac{3}{8}$ " 220, $\frac{3}{8}$ " 222, $\frac{1}{2}$ " 224, and five handles, H-282 Speed Handle, H-289 Universal Joint, H-287 Sliding Tee, H-272, 6" Extension, H-273, 10" Extension in Metal Case No. H-290 which is 19" x 5" x 1 $\frac{1}{2}$ ".

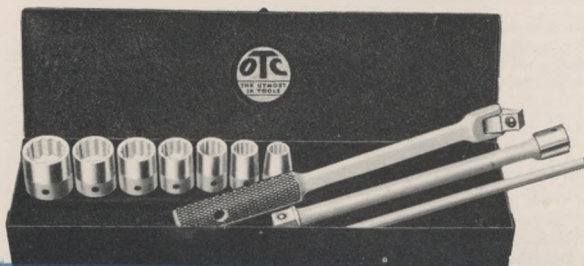
No. 282—Junior Socket Set in Metal Case. Wt. 5 $\frac{3}{4}$ lbs.



11 PIECES

This is a small, compact unit covering a complete range of sizes with the popular OTC Flex Handle and Extension. Will do a variety of work all out of proportion to its size and is a good set and a nucleus for a more complete set. It consists of seven sockets, 212, $\frac{3}{8}$ " 214, $\frac{1}{2}$ " 216, $\frac{1}{2}$ " 218, $\frac{3}{8}$ " 220, $\frac{3}{8}$ " 222, $\frac{1}{2}$ " 224, and two handles H-275 Flex Handle and H-272, 6" Extension complete in a sturdy metal case 10 $\frac{1}{2}$ " x 2 $\frac{3}{4}$ " x 1 $\frac{1}{8}$ ". No. 890

No. SF-235—Junior Set in Metal Case. Wt. 2 lbs.



NUMBER SF-235 JUNIOR SET

$\frac{3}{8}$ " SQUARE DRIVE



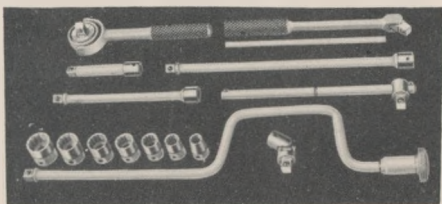
JUNIOR SUPERFLEX SET No. SF-280

$\frac{3}{4}$ " SQUARE DRIVE

A complete, compact set of $\frac{3}{4}$ " Drive Sockets which includes all the popular sizes and handles in this series. It is a set every service

man should have since it is ideal for work on generators, starters, magnetos, manifolds, etc., on aircraft, automobiles, trucks and tractors.

It contains 15 units including seven sockets: 212, $\frac{3}{8}$ "; 214, $\frac{7}{16}$ "; 216, $\frac{1}{2}$ "; 218, $\frac{9}{16}$ "; 220, $\frac{5}{8}$ "; 222, $\frac{11}{16}$ "; 224, $\frac{3}{4}$ " and eight handles, the H-283, 15" Speed Handle, H-275, 8" Flex Handle, H-260 Flex Ratchet, H-287, 8" Sliding Tee Handle, H-289 Universal Joint, H-271, 3" Extension, H-272, 6" Extension and H-273, 10" Extension in a sturdy Metal Box No. H-290 which is 19" x 5" x 1 $\frac{1}{2}$ ".



No. SF-280—Junior Superflex Set in Metal Case. Wt. 7 lbs.

JUNIOR UTILITY SET

No. SF-230

$\frac{3}{8}$ " SQUARE DRIVE

A compact utility set that will appeal to refrigeration and air-conditioning service men as well as automotive and aircraft maintenance mechanics.

It contains seven Junior sockets, 212, $\frac{3}{8}$ "; 214, $\frac{7}{16}$ "; 216, $\frac{1}{2}$ "; 218, $\frac{9}{16}$ "; 220, $\frac{5}{8}$ "; 222, $\frac{11}{16}$ "; 224, $\frac{3}{4}$ "; H-275 Flex Handle, H-272, 6" Extension, seven Combination Wrenches, C-12, $\frac{3}{8}$ "; C-14, $\frac{7}{16}$ "; C-16, $\frac{1}{2}$ "; C-18, $\frac{9}{16}$ "; C-20, $\frac{5}{8}$ "; C-22, $\frac{11}{16}$ "; C-24, $\frac{3}{4}$ "; a TP-12, $\frac{3}{8}$ " Bit Taper Punch, CC-16, $\frac{1}{2}$ " Bit Cold Chisel; SS-64, 6 $\frac{1}{2}$ " and SS-83, 9 $\frac{1}{2}$ " Screw Drivers and an 8" Mill File in a handy metal case.

Additional socket handles as shown on page 43 can be added when the need for them arises.

No. SF-230—Junior Utility Set complete in Metal Case. Wt. 6 $\frac{1}{2}$ lbs.



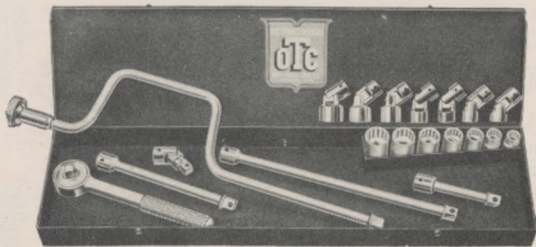
No. H-99—Metal Case (only) 14 $\frac{1}{2}$ " x 4 $\frac{1}{2}$ " x 2" Wt. 2 $\frac{1}{4}$ lbs.

JUNIOR FLEX SOCKET SET No. SF-242

$\frac{3}{4}$ " SQUARE DRIVE

A new and more complete OTC Junior Socket Set that includes the popular Junior Universal Sockets. This set is well suited for work on generators, magnetos, starters, manifolds, etc., or aircraft, automobiles, trucks, tractors and similar equipment.

It includes 7 straight, thin-wall sockets: 212, $\frac{3}{8}$ "; 214, $\frac{7}{16}$ "; 216, $\frac{1}{2}$ "; 218, $\frac{9}{16}$ "; 220, $\frac{5}{8}$ "; 222, $\frac{11}{16}$ "; 224, $\frac{3}{4}$ " and 7 Universal Sockets U-212, $\frac{3}{8}$ "; U-214, $\frac{7}{16}$ "; U-216, $\frac{1}{2}$ "; U-218, $\frac{9}{16}$ "; U-220, $\frac{5}{8}$ "; U-222, $\frac{11}{16}$ "; U-224, $\frac{3}{4}$ " and six handles: H-283, 15" Speed Handle, H-261, Junior Ratchet, H-289 Universal Joint, H-271, 3" Extension, H-272, 6" Extension and H-273, 10" Extension in a sturdy Metal Box No. H-290 which is 19" x 5" x 1 $\frac{1}{2}$ ".



No. SF-242—Junior Socket Set. Wt. 9 $\frac{3}{4}$ lbs.

OTC 12 POINT STANDARD SOCKETS

1/4" SQUARE DRIVE

OTC thin-wall, straight sockets, hot forged of chrome Vanadium steel are recognized throughout the world as the ultimate in design, quality and workmanship. The hot-forging process increases strength, permits a thinner wall and is more accurate as to size. This, of course, makes for greater operating efficiency, longer life and increased value. Years of research and experimentation have gone into these sockets to build a product that has the unqualified recommendation of every maintenance man who has ever used it.

| Wrench No. | Opening Size | Length | Outside Diameter | | Weight per Doz. | |
|------------|--------------|--------|------------------|-----------|-----------------|------|
| | | | Socket End | Drive End | Lbs. | Ozs. |
| 112 | 1/2" | 1 1/2" | 1 1/2" | 1 1/2" | 1 | 8 |
| 114 | 3/4" | 1 1/2" | 1 3/4" | 1 3/4" | 1 | 8 |
| 116 | 7/8" | 1 1/2" | 1 7/8" | 1 7/8" | 1 | 8 |
| 118 | 1" | 1 1/2" | 2" | 2" | 1 | 8 |
| 119 | 1 1/16" | 1 1/2" | 2 1/16" | 2 1/16" | 1 | 8 |
| 120 | 1 1/8" | 1 1/2" | 2 1/8" | 2 1/8" | 1 | 8 |
| 121 | 1 1/4" | 1 1/2" | 2 1/4" | 2 1/4" | 1 | 8 |
| 122 | 1 1/2" | 1 1/2" | 2 1/2" | 2 1/2" | 1 | 8 |
| 124 | 1 3/4" | 1 1/2" | 2 3/4" | 2 3/4" | 1 | 8 |
| 125 | 2" | 1 1/2" | 3" | 3" | 1 | 10 |
| 126 | 2 1/16" | 1 1/2" | 3 1/16" | 3 1/16" | 2 | 4 |
| 128 | 2 1/8" | 1 1/2" | 3 1/8" | 3 1/8" | 2 | 4 |
| 130 | 2 1/4" | 1 1/2" | 3 1/4" | 3 1/4" | 3 | 12 |
| 131 | 2 1/2" | 1 1/2" | 3 1/2" | 3 1/2" | 3 | 12 |
| 132 | 2 3/4" | 1 1/2" | 3 3/4" | 3 3/4" | 4 | 2 |
| 134 | 3" | 1 1/2" | 4" | 4" | 5 | 2 |
| 136 | 3 1/8" | 1 1/2" | 4 1/8" | 4 1/8" | 6 | 2 |
| 138 | 3 1/4" | 1 1/2" | 4 1/4" | 4 1/4" | 7 | 2 |
| 140 | 3 1/2" | 1 1/2" | 4 1/2" | 4 1/2" | | |

OTC EXTRA LENGTH SOCKETS

3/4" LONG, 1/4" SQUARE DRIVE

Especially designed for shackle, spring clip and body bolts on automobiles, trucks and heavy equipment, but practical on many other jobs as well. Straight walls and thin enough to get into tight places.

| No. | Size | Length | Outside Diameter | | Wt. |
|--------|---------|--------|------------------|-----------|--------|
| | | | Socket End | Drive End | |
| L-116 | 1/2" | 3" | 1 1/2" | 1 1/2" | 5 oz. |
| L-118 | 3/4" | 3" | 1 3/4" | 1 3/4" | 4 oz. |
| *L-120 | 7/8" | 3" | 1 7/8" | 1 7/8" | 4 oz. |
| †L-122 | 1" | 3" | 2" | 2" | 4 oz. |
| L-124 | 1 1/16" | 3" | 2 1/16" | 2 1/16" | 5 oz. |
| L-131 | 1 1/8" | 3 1/4" | 2 1/8" | 2 1/8" | 8 oz. |
| L-134 | 1 1/4" | 3 1/2" | 2 1/4" | 2 1/4" | 10 oz. |

No. L-6—Set of above 6 sizes. Less No. L-131. Wt. 2 lbs.

No. L-7—Set of 7 above sizes. Wt. 2 1/2 lbs.

* For 10 MM A-C 104 Series Spark Plug.

† For 10 MM Auto-Lite & Champion Spark Plugs.

OTC SPARK PLUG SOCKETS

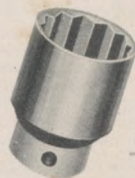
1/4" SQUARE DRIVE

Sturdy, thin wall sockets, accurately broached and designed especially for Spark Plug use. They eliminate danger of cracking enamel or distorting the plugs.

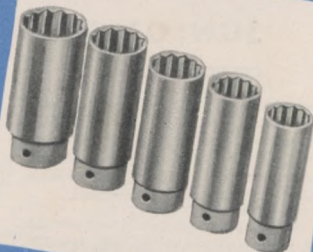
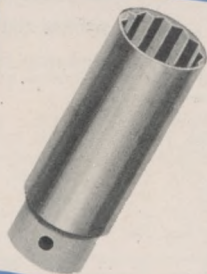
| No. | Size | Length | Outside Diameter | | Wt. |
|-------|--------|--------|------------------|-----------|--------|
| | | | Socket End | Drive End | |
| L-126 | 1/2" | 3" | 1 1/2" | 1 1/2" | 4 oz. |
| L-128 | 3/4" | 3 1/4" | 1 3/4" | 1 3/4" | 6 oz. |
| L-130 | 7/8" | 3 1/2" | 1 7/8" | 1 7/8" | 7 oz. |
| L-132 | 1" | 3 3/4" | 2" | 2" | 10 oz. |
| L-136 | 1 1/8" | 3 1/2" | 2 1/8" | 2 1/8" | 12 oz. |

No. L-5—Spark Plug Set of 5 above. Wt. 3 lbs.

No. L-5B—No. L-5 Set in Metal Case. Wt. 3 1/2 lbs.



OTC

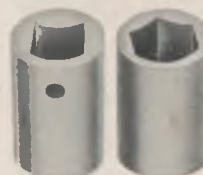


OTC Sockets are individually heat-treated in electrically controlled furnaces to insure uniformity of strength and toughness. They can be purchased with confidence and the full assurance that there is no better socket made.

IMPACT SOCKETS

$\frac{1}{2}$ " Sq. Drive

A new departure in Impact Sockets that provides a forged power socket that will stand up longer and give better service than a majority of impact sockets on the market today. Comparatively thin-



walled with hexagon openings that will take the abuse of assembly line production. Built-in strength and toughness with a high safety factor and a maximum clearance are features of these new OTC Sockets that will appeal to all users of power wrenches. See the table below for specifications.

| No. | Opening Size | Overall Lgth. | Outside Diam. | | Broach Depth | Weight per doz. Lbs. Ozs. |
|--------|-------------------|------------------|--------------------|--------------------|-------------------|---------------------------|
| | | | Socket End | Drive End | | |
| PS-114 | $\frac{3}{16}$ " | $1\frac{1}{2}$ " | $\frac{33}{64}$ " | $\frac{15}{16}$ " | $\frac{1}{16}$ " | 1 10 |
| PS-116 | $\frac{1}{8}$ " | $1\frac{1}{2}$ " | $\frac{25}{64}$ " | $\frac{15}{16}$ " | $\frac{1}{16}$ " | 1 10 |
| PS-118 | $\frac{9}{16}$ " | $1\frac{1}{2}$ " | $\frac{15}{16}$ " | $\frac{31}{32}$ " | $\frac{1}{16}$ " | 1 10 |
| PS-120 | $\frac{5}{8}$ " | $1\frac{1}{2}$ " | $\frac{31}{32}$ " | $\frac{31}{32}$ " | $\frac{1}{16}$ " | 1 10 |
| PS-122 | $\frac{11}{16}$ " | $1\frac{1}{2}$ " | $1\frac{1}{2}$ " | $1\frac{1}{2}$ " | $\frac{1}{16}$ " | 1 12 |
| PS-124 | $\frac{3}{8}$ " | $1\frac{1}{2}$ " | $\frac{13}{16}$ " | $\frac{15}{16}$ " | $\frac{5}{16}$ " | 1 12 |
| PS-126 | $\frac{13}{16}$ " | $1\frac{1}{2}$ " | $\frac{13}{16}$ " | $\frac{15}{16}$ " | $\frac{15}{16}$ " | 1 14 |
| PS-128 | $\frac{7}{8}$ " | $1\frac{1}{2}$ " | $\frac{13}{16}$ " | $\frac{15}{16}$ " | $\frac{11}{16}$ " | 2 |
| PS-130 | $\frac{15}{16}$ " | $1\frac{1}{2}$ " | $1\frac{11}{16}$ " | $1\frac{11}{16}$ " | $\frac{33}{32}$ " | 2 |
| PS-132 | 1" | $1\frac{3}{4}$ " | $\frac{11}{16}$ " | $\frac{11}{16}$ " | $\frac{5}{8}$ " | 2 4 |
| PS-134 | $1\frac{1}{8}$ " | $1\frac{3}{4}$ " | $\frac{11}{16}$ " | $\frac{11}{16}$ " | $\frac{3}{4}$ " | 2 4 |
| PS-136 | $1\frac{1}{4}$ " | $1\frac{3}{4}$ " | $\frac{11}{16}$ " | $\frac{11}{16}$ " | $\frac{3}{4}$ " | 4 8 |
| PS-140 | $1\frac{1}{2}$ " | $1\frac{3}{4}$ " | $\frac{11}{16}$ " | $\frac{11}{16}$ " | $\frac{7}{8}$ " | 6 |



HEXAGON SOCKETS

$\frac{1}{2}$ " Sq. Drive

Six sizes are available in this popular type socket. Because they are used more often, the 12 point sockets in these sizes wear out quicker. Hex opening sockets wear longer. The hot forging permits thin walls, yet assures great strength. Accurately broached to size and fully heat-treated. These wrenches should be in every service man's tool box.

| Wrench No. | Opening Size | Length | Outside Diameter | | Weight per Doz. Lbs. Ozs. |
|------------|-------------------|------------------|-------------------|-------------------|---------------------------|
| | | | Socket End | Drive End | |
| D-114 | $\frac{3}{16}$ " | $1\frac{1}{2}$ " | $\frac{5}{8}$ " | $\frac{7}{8}$ " | 12 |
| D-116 | $\frac{1}{8}$ " | $1\frac{1}{2}$ " | $\frac{49}{64}$ " | $\frac{7}{8}$ " | 12 |
| D-118 | $\frac{9}{16}$ " | $1\frac{1}{2}$ " | $\frac{15}{16}$ " | $\frac{7}{8}$ " | 12 |
| D-120 | $\frac{5}{8}$ " | $1\frac{1}{2}$ " | $\frac{7}{8}$ " | $\frac{7}{8}$ " | 1 8 |
| D-122 | $\frac{11}{16}$ " | $1\frac{1}{2}$ " | $\frac{15}{16}$ " | $\frac{15}{16}$ " | 1 8 |
| D-124 | $\frac{3}{4}$ " | $1\frac{1}{2}$ " | $1\frac{1}{4}$ " | $\frac{15}{16}$ " | 1 8 |



TIE ROD SOCKETS

$\frac{1}{2}$ " Sq. Drive

Built especially for adjusting tie rods, drag links and shock absorber screws but are equally useful on many other jobs found in cars, trucks and tractors. Two

sizes are available in $\frac{1}{2}$ " drive and should be included in every service man's tool set.

| No. | Bit Length | Bit Thickness | Weight |
|-----|------------------|------------------|--------|
| 127 | $\frac{3}{4}$ " | $\frac{3}{16}$ " | 2 oz. |
| 129 | $1\frac{1}{8}$ " | $\frac{1}{8}$ " | 2 oz. |

OTC

REDUCING ADAPTORS

Four sizes of reducing adaptors permit complete interchangeability between the $\frac{1}{2}$ " drive series and the $\frac{3}{8}$ " and $\frac{3}{4}$ " drive series. This interchangeability is a distinct advantage in many cases where obstructions do not permit using standard equipment.

OTC Reducing Adaptors are hot-forged of Chrome Alloy steel, accurately machined, fully heat-treated and beautifully finished.

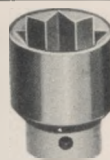


| No. | Female End | Male End | Weight |
|--------|-----------------|-----------------|--------|
| D-1216 | $\frac{3}{8}$ " | $\frac{1}{2}$ " | 2 oz. |
| D-1612 | $\frac{1}{2}$ " | $\frac{3}{8}$ " | 2 oz. |
| D-1620 | $\frac{1}{2}$ " | $\frac{5}{8}$ " | 4 oz. |
| D-1624 | $\frac{3}{8}$ " | $\frac{3}{4}$ " | 4 oz. |
| D-2016 | $\frac{3}{8}$ " | $\frac{1}{2}$ " | 4 oz. |
| D-2416 | $\frac{3}{4}$ " | $\frac{1}{2}$ " | 6 oz. |

EIGHT POINT SOCKETS

$\frac{1}{2}$ " Square Drive

Valuable additions to any socket set. Particularly useful on farm machinery but practical on any machines using square head bolts and nuts. The double square opening permits a short throw and makes inaccessible nuts easy to reach.



| Wrench No. | Opening Size | Length | Outside Diameter | | Weight per Doz. Lbs. Ozs. |
|------------|-------------------|------------------|-------------------|-------------------|---------------------------|
| | | | Socket End | Drive End | |
| S-114 | $\frac{3}{16}$ " | $1\frac{1}{2}$ " | $\frac{55}{64}$ " | $\frac{15}{16}$ " | 1 8 |
| S-116 | $\frac{1}{8}$ " | $1\frac{1}{2}$ " | $\frac{55}{64}$ " | $\frac{15}{16}$ " | 1 8 |
| S-118 | $\frac{9}{16}$ " | $1\frac{1}{2}$ " | $\frac{15}{16}$ " | $\frac{15}{16}$ " | 1 8 |
| S-120 | $\frac{5}{8}$ " | $1\frac{1}{2}$ " | $\frac{15}{16}$ " | $\frac{15}{16}$ " | 2 4 |
| S-122 | $\frac{11}{16}$ " | $1\frac{1}{2}$ " | $\frac{15}{16}$ " | $\frac{15}{16}$ " | 2 4 |
| S-124 | $\frac{3}{4}$ " | $1\frac{1}{2}$ " | $\frac{15}{16}$ " | $\frac{15}{16}$ " | 3 |
| S-126 | $\frac{13}{16}$ " | $1\frac{1}{2}$ " | $\frac{15}{16}$ " | $\frac{15}{16}$ " | 4 8 |
| S-128 | $\frac{7}{8}$ " | $1\frac{1}{2}$ " | $\frac{15}{16}$ " | $\frac{15}{16}$ " | 6 |
| S-132 | 1" | $1\frac{1}{2}$ " | $\frac{15}{16}$ " | $\frac{15}{16}$ " | 7 8 |
| S-134 | $1\frac{1}{8}$ " | $1\frac{1}{2}$ " | $\frac{15}{16}$ " | $\frac{15}{16}$ " | 8 4 |

HEXAGON UNIVERSAL SOCKET

$\frac{1}{2}$ " Sq. Drive

Four popular sizes are available in OTC Hex Universal Sockets. These wrenches are especially practical for work on head bolts, motor base nuts, timing gear covers, starter bolts, etc. They are close-coupled and break over at 90° to provide plenty of clearance. Each socket is hot-forged, fully heat-treated and beautifully finished.



| No. | Size | Length | Outside Diameter | | Weight |
|-------|-------------------|------------------|------------------|-------------------|--------|
| | | | Socket End | Drive End | |
| U-118 | $\frac{9}{16}$ " | $2\frac{3}{4}$ " | $\frac{7}{8}$ " | $\frac{15}{16}$ " | 3 oz. |
| U-120 | $\frac{5}{8}$ " | $2\frac{3}{4}$ " | $\frac{7}{8}$ " | $\frac{15}{16}$ " | 3 oz. |
| U-122 | $\frac{11}{16}$ " | $2\frac{3}{4}$ " | $\frac{7}{8}$ " | $\frac{15}{16}$ " | 3 oz. |
| U-124 | $\frac{3}{4}$ " | $2\frac{3}{4}$ " | 1" | $\frac{15}{16}$ " | 3 oz. |



UNIVERSAL JOINT

$\frac{1}{2}$ " Sq. Drive

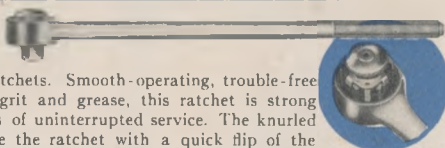
A necessary unit in every socket set and one that adds to the efficiency and practical utility of every other part of the set. Provides clearance for getting into tight places. Breaks over at right angles. $2\frac{1}{2}$ " long overall. H-189—Universal Joint. Wt. 4 oz.



Reversible Ratchet

NO. H-163 $\frac{1}{2}$ " SQUARE DRIVE

The latest thing in reversible ratchets. Smooth-operating, trouble-free and fully enclosed to keep out grit and grease, this ratchet is strong enough to stand up under years of uninterrupted service. The knurled reversing button on top makes it easy to reverse the ratchet with a quick flip of the fingers. 11 $\frac{1}{2}$ " long. No. H-163—Reversible Ratchet. Wt. 1 $\frac{1}{2}$ lbs.

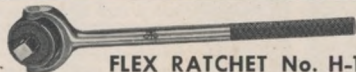


24 TOOTH RATCHET

No. H-161 $\frac{1}{2}$ " Square Drive

This ratchet has a push-through type plug and is reversed in this manner. It has 24 teeth and four dogs always in engagement for short throw and extra strength. It is smooth working and fully enclosed to keep out grit and grease. 11 $\frac{1}{4}$ " long.

No. H-161—Standard Ratchet, complete. Wt. 1 $\frac{1}{4}$ lbs.
No. H-162—Ratchet Plug (only)

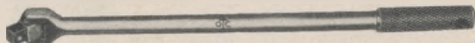


FLEX RATCHET No. H-160

$\frac{1}{2}$ " Square Drive

This ratchet works just like a flex handle which permits the ratchet head to swing in a 180° arc. It has 24 teeth with four dogs always in engagement and is fully enclosed. Comes equipped with push-through plug. It is 12" long with 2 $\frac{3}{16}$ " head diameter and $\frac{11}{16}$ " head thickness.

No. H-160—Flex Ratchet. Wt. 1 $\frac{1}{2}$ lbs.
No. H-162—Ratchet Plug (only)

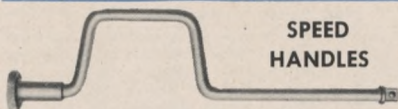


FLEX HANDLES

$\frac{1}{2}$ " Square Drive

These handles are built for long, trouble-free service. They are well balanced for easy use and their rugged strength gives assurance of good service. Drop-forged from Chrome-Vanadium steel and heat-treated throughout.

| No. | OA Length | Drive | Weight |
|-------|-----------|-----------------|----------------------|
| H-176 | 15" | $\frac{1}{2}$ " | 2 lbs. |
| H-177 | 18" | $\frac{1}{2}$ " | 2 $\frac{1}{2}$ lbs. |



SPEED HANDLES

$\frac{1}{2}$ " Square Drive

Built of Chrome Vanadium steel and fully heat-treated these speed handles will not twist or bend. The knob works on a ball bearing which prevents sticking and gives freedom of action.

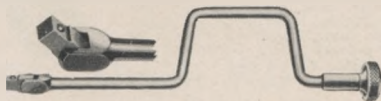
| No. | Length | Drive | Weight |
|-------|--------|-----------------|----------------------|
| H-183 | 15" | $\frac{1}{2}$ " | 1 $\frac{1}{4}$ lbs. |
| H-184 | 18" | $\frac{1}{2}$ " | 1 $\frac{1}{2}$ lbs. |



EXTENSIONS $\frac{1}{2}$ " Square Drive

All OTC Extensions are built from Chrome Vanadium steel and fully heat-treated to prevent bending or twisting. They are essential components of every socket set and provide the clearance so necessary on all kinds of maintenance work.

| No. | OA Lgth. | Drive | Wt. |
|-------|-------------------|-----------------|----------------------|
| H-170 | 1 $\frac{1}{2}$ " | $\frac{1}{2}$ " | 2 oz. |
| H-171 | 3" | $\frac{1}{2}$ " | 6 oz. |
| H-172 | 6" | $\frac{1}{2}$ " | 8 oz. |
| H-173 | 10" | $\frac{1}{2}$ " | 14 oz. |
| H-174 | 18" | $\frac{1}{2}$ " | 1 $\frac{1}{4}$ lbs. |



FLEX SPEED HANDLE $\frac{1}{2}$ " Sq. Drive

This handle combines the best feature of the Flex handle with that of a speeder to make a very practical unit. Leverage to tighten or loosen the toughest nut—speed to spin them on or off. 16" long.

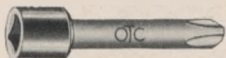
No. H-185—Flex Speeder. Wt. 2 $\frac{1}{2}$ lbs.



SLIDING TEE HANDLE $\frac{1}{2}$ " Sq. Drive

Built of Chrome Vanadium steel and fully heat-treated, these handles are valuable additions in any socket set. Used with extensions they make an ideal T speed wrench for head bolt and main bearing work.

| No. | Length | Drive | Weight |
|-------|--------|-----------------|----------------------|
| H-187 | 10" | $\frac{1}{2}$ " | 1 lb. |
| H-181 | 15" | $\frac{1}{2}$ " | 1 $\frac{1}{4}$ lbs. |



PHILLIPS ATTACHMENTS $\frac{1}{2}$ " Square Drive

Essential attachments for every service man's tool box. Used with $\frac{1}{2}$ " drive handles they give you the power you need on door hinges, etc.

| No. | Point No. | Length | Weight |
|-------|-----------|--------|--------|
| H-165 | 2 | 3" | 2 oz. |
| H-166 | 3 | 3" | 2 oz. |
| H-167 | 4 | 3" | 2 oz. |



SUPERFLEX SET No. SF-183 $\frac{1}{2}$ " SQUARE DRIVE

An excellent combination of sockets and handles that any service man will be proud to own. Sockets are hot-forged for strength, accuracy and long life. All parts are made of Chrome Vanadium steel and fully heat-treated. This set consists of eleven straight, thin-wall sockets: 114, $\frac{1}{4}$ "; 116, $\frac{3}{8}$ "; 118, $\frac{1}{2}$ "; 120, $\frac{5}{8}$ "; 122, $\frac{3}{4}$ "; 124, $\frac{7}{8}$ "; 126, $\frac{1}{2}$ "; 128, $\frac{1}{2}$ "; 130, $\frac{1}{2}$ "; 132, 1"; 134, $\frac{1}{2}$ ". Four hexagon universal sockets: U-118, $\frac{1}{2}$ "; U-120, $\frac{3}{8}$ "; U-122, $\frac{1}{2}$ "; U-124, $\frac{1}{2}$ "; four handles H-176, 15" Flex Handle, H-163 Reversible Ratchet, H-172, 6" Extension and H-173, 10" Extension in the F-190 Metal Case which is 16" x 5 $\frac{1}{2}$ " x 2".

No. SF-183—Superflex Socket Set. Wt. 10 $\frac{1}{4}$ lbs.

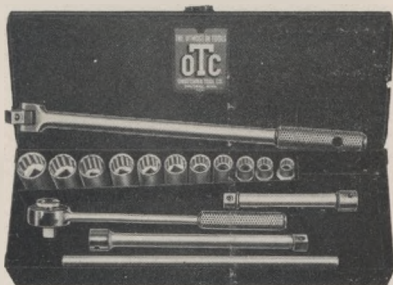


STANDARD FLEX SET No. SF-181

$\frac{1}{2}$ " SQUARE DRIVE

A medium priced combination of sockets and handles that will provide the nucleus for a more complete set as additional items are needed. It is an ideal set to start with as it includes only the most essential tools. It includes eleven straight thin-wall sockets: 114, $\frac{1}{4}$ "; 116, $\frac{3}{8}$ "; 118, $\frac{1}{2}$ "; 120, $\frac{5}{8}$ "; 122, $\frac{3}{4}$ "; 124, $\frac{7}{8}$ "; 125, $\frac{5}{8}$ "; 126, $\frac{3}{8}$ "; 128, $\frac{3}{8}$ "; 130, $\frac{1}{2}$ "; 132, 1"; the H-176, 15" Flex Handle, H-163 Reversible Ratchet, H-172, 6" Extension, and H-173, 10" Extension in the F-190 Metal Case which is 16" x 5 $\frac{1}{2}$ " x 2".

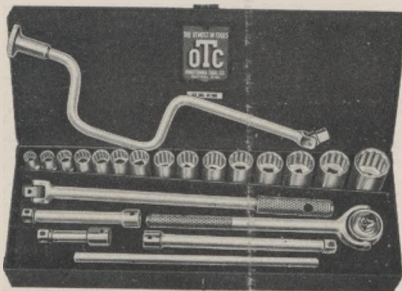
No. SF-181—Standard Flex Set. Wt. 10 lbs.



SUPERFLEX SET No. SF-180 $\frac{1}{2}$ " SQUARE DRIVE

A combination of sockets and handles designed to increase the speed and efficiency of every mechanic who owns this set. It contains the most popular sockets and handles needed in every day work, and combines a maximum of utility and flexibility at a low price. The OTC Superflex Set consists of 15 sockets: 114, $\frac{1}{4}$ "; 116, $\frac{3}{8}$ "; 118, $\frac{1}{2}$ "; 120, $\frac{5}{8}$ "; 121, $\frac{1}{2}$ "; 122, $\frac{3}{4}$ "; 124, $\frac{7}{8}$ "; 125, $\frac{5}{8}$ "; 126, $\frac{3}{8}$ "; 128, $\frac{3}{8}$ "; 130, $\frac{1}{2}$ "; 132, 1"; 134, $\frac{1}{2}$ "; 186, 1 $\frac{1}{4}$ "; 140, 1 $\frac{1}{4}$ "; H-176 Flex Handle, H-185 Flex Speeder, H-160 Flex Ratchet, H-171, 3" Extension, H-172, 6" Extension, H-173, 10" Extension in the H-190 Metal Case which is 18 $\frac{1}{2}$ " x 6 $\frac{1}{2}$ " x 2".

No. SF-180—Superflex Set in Metal Case. Wt. 15 lbs.



SOCKET SET No. 188 $\frac{1}{2}$ " SQUARE DRIVE

A socket set that carries a complete range of sockets only and which does not include any handles. This set includes sizes as follows: 114, $\frac{1}{4}$ "; 116, $\frac{3}{8}$ "; 118, $\frac{1}{2}$ "; 119, $\frac{1}{2}$ "; 120, $\frac{5}{8}$ "; 121, $\frac{1}{2}$ "; 122, $\frac{3}{4}$ "; 124, $\frac{7}{8}$ "; 125, $\frac{5}{8}$ "; 126, $\frac{3}{8}$ "; 128, $\frac{3}{8}$ "; 130, $\frac{1}{2}$ "; 132, 1"; 134, $\frac{1}{2}$ "; 136, 1 $\frac{1}{4}$ " and 140,



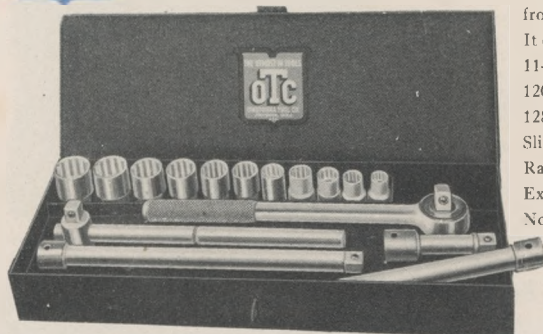
1 $\frac{1}{4}$ ". Contained in a metal tray as illustrated this set provides all the popular sizes in a handy convenient carrying case 18 $\frac{1}{2}$ " long, No. 195.

No. 188—Socket Set in Metal Tray. Wt. 4 $\frac{1}{2}$ lbs.



SOCKET SET

No. F-187 1/2" Square Drive



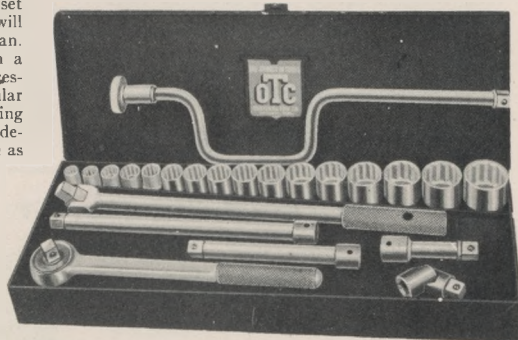
A compact utility socket set that contains only essential units but which can be expanded by adding other units as needed. An excellent set to be used as a nucleus from which to build a more complete set. It contains 17 items as follows: 11 sockets, 114, 3/16"; 116, 1/2"; 118, 9/16"; 119, 11/16"; 120, 5/8"; 122, 11/16"; 124, 3/4"; 126, 13/16"; 128, 7/8"; 130, 15/16"; 132, 1"; No. H-187 Sliding Tee Handle, H-163 Reversible Ratchet, H-171, 3" Extension, H-172, 6" Extension, H-173, 10" Extension in the No. F-190 Metal Case, 5 1/2" x 16" x 2".

No. F-187—Socket Set in Case.
Wt. 10 lbs.

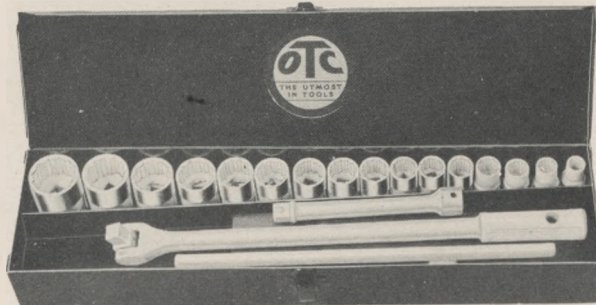
SOCKET SET No. F-189 1/2" Square Drive

More complete than the set above this set carries a range of sizes and handles that will appeal to every automotive maintenance man. It has all the essential tools required in a socket set and no additional tools are necessary. There are 16 sockets and seven popular handles and extensions to make a working unit that will satisfy the most exacting demands. Sockets and handles in this set are as follows: 114, 3/16"; 116, 1/2"; 118, 9/16"; 119, 11/16"; 120, 5/8"; 122, 11/16"; 124, 3/4"; 125, 13/16"; 126, 13/16"; 128, 7/8"; 130, 15/16"; 132, 1"; 134, 1 1/16"; 136, 1 1/8"; 138, 1 3/16" and 140, 1 1/4". No. H-183 Speed Handle, H-176 Flex Handle, H-163 Reversible Ratchet, H-189 Universal Joint, H-171, 3" Extension, H-172, 6" Extension, H-173, 10" Extension in the H-190 Metal Case, 18 1/2" x 6 1/2" x 2".

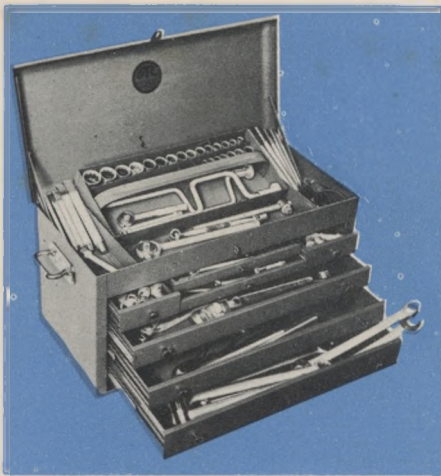
No. F-189—Socket Set in Metal Case. Wt. 14 1/2 lbs.



FLEX SOCKET SET No. F-186 1/2" Square Drive



A complete range of socket sizes from 3/16" to 1 1/4" recommends this set as one that is both compact and versatile. Additional handles can be added as the need arises. Consists of 16 sockets: 114, 3/16"; 116, 1/2"; 118, 9/16"; 119, 11/16"; 120, 5/8"; 121, 21/32"; 122, 11/16"; 124, 3/4"; 125, 13/16"; 126, 13/16"; 128, 7/8"; 130, 15/16"; 132, 1"; 134, 1 1/16"; 136, 1 1/8"; 140, 1 1/4"; H-176 Flex Handle, H-172, 6" Extension in the F-192 Metal Case which is 19" x 4 3/4" x 2 1/4". No. F-186—Flex Set in Metal Case. Wt. 9 lbs.



No. 103-A—Super Service Set in No. 107 Deluxe Chest, Weight 110 lbs.

No. 107—Deluxe Chest with Tote Tray, Weight 63 lbs. Deluxe Chest is illustrated and described on page 58.

No. 103-A SUPER SET

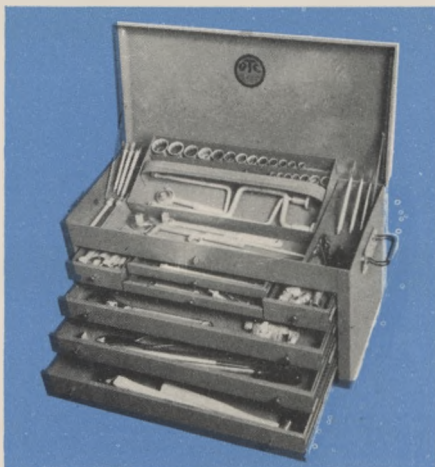
82 PIECES

Comprising a wide range of wrench sizes and including a well rounded out assortment of generally useful tools this set is an extremely popular one. It consists of 82 units with the chest. There are 19 standard $\frac{1}{2}$ " drive sockets, 112, $\frac{3}{8}$ ", 114, $\frac{7}{16}$ "; 116, $\frac{1}{2}$ "; 118, $\frac{9}{16}$ "; 119, $\frac{19}{32}$ "; 120, $\frac{5}{8}$ "; 122, $\frac{11}{16}$ "; 124, $\frac{3}{4}$ "; 125, $\frac{25}{32}$ "; 126, $\frac{13}{16}$ "; 128, $\frac{7}{8}$ "; 130, $\frac{15}{16}$ "; 132, 1"; 134, $1\frac{1}{16}$ "; 136, $1\frac{1}{8}$ "; 140, $1\frac{1}{4}$ "; three Universal Hex. Sockets U-118, $\frac{9}{16}$ "; U-120, $\frac{5}{8}$ "; U-122, $\frac{11}{16}$ "; No. H-160 Flex Ratchet, H-189 Univ. Jt., H-176 Flex Handle, H-183 Speed Handle, H-187 Sliding Tee Handle and 3 Extensions, H-171, 3"; H-172, 6" and H-173, 10". Seven sockets and Handles with $\frac{3}{8}$ " drive 212, $\frac{3}{8}$ "; 214, $\frac{1}{2}$ "; 216, $\frac{5}{8}$ "; 218, $\frac{9}{16}$ "; 220, $\frac{5}{8}$ "; 222, $\frac{11}{16}$ "; 224, $\frac{3}{4}$ "; H-261 Ratchet, H-283 Speed Handle, H-287 Sliding Tee, H-289 Universal Joint and 3 Extensions H-271, 3"; H-272, 6" and H-273, 10". Fifteen Combination Wrenches, C-12, $\frac{3}{8}$ "; C-14, $\frac{7}{16}$ "; C-16, $\frac{1}{2}$ "; C-18, $\frac{9}{16}$ "; C-20, $\frac{5}{8}$ "; C-22, $\frac{11}{16}$ "; C-24, $\frac{3}{4}$ "; C-28, $\frac{7}{8}$ "; C-30, $\frac{15}{16}$ "; C-32, 1"; C-34, $1\frac{1}{16}$ "; C-36, $1\frac{1}{8}$ "; C-40, $1\frac{1}{4}$ "; C-42, $1\frac{1}{2}$ "; C-46, $1\frac{3}{8}$ "; three Screw Drivers, SS-64, $6\frac{1}{2}$ "; RS-8S, 3"; SS-81, 14"; two Pliers, 712, 6" Slip Joint and 614 Snap Ring; DA-10, 10" Adjustable and PW-10, 10" Pipe Wrench, 3 Files, 12" flat, 10" round, 12" square, one F-1618, $\frac{1}{2}$ " x $\frac{5}{16}$ " Flex Wrench, one BP-32, 2 lb. Ball Pein Hammer, PT-16, 12 oz. Soft Tip Hammer, PC-25 set of 6 Chisels and 6 Taper Punches, one PB-43 Pry Bar in the No. 107 De Luxe Mechanics Chest.

No. 104-A SUPER SET

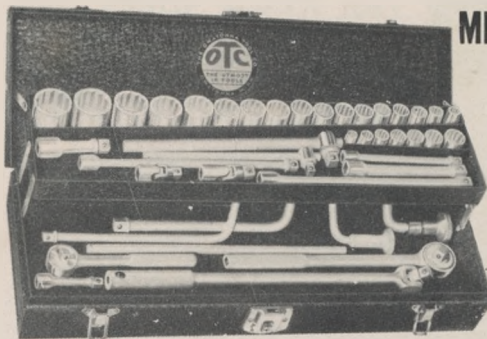
60 PIECES

An essential set not quite as complete as that above but which can be added to as the need arises. It carries only essential sizes in wrenches and also many miscellaneous tools for every day use. The most complete set of its kind in its price range. It contains 60 units including the chest as follows: $\frac{1}{2}$ " Drive Sockets and Handles, 114, $\frac{7}{16}$ "; 116, $\frac{1}{2}$ "; 118, $\frac{9}{16}$ "; 120, $\frac{5}{8}$ "; 122, $\frac{11}{16}$ "; 124, $\frac{3}{4}$ "; 126, $\frac{13}{16}$ "; 128, $\frac{7}{8}$ "; 130, $\frac{15}{16}$ "; 132, 1"; 134, $1\frac{1}{16}$ "; 136, $1\frac{1}{8}$ "; 140, $1\frac{1}{4}$ "; H-163 Ratchet, H-176 Flex Handle, H-183 Speed Handle, H-189 Universal Joint and 2 Extensions H-172, 6" and H-173, 10"; $\frac{3}{8}$ " Drive Sockets and Handles, 212, $\frac{3}{8}$ "; 214, $\frac{1}{2}$ "; 216, $\frac{5}{8}$ "; 218, $\frac{9}{16}$ "; 220, $\frac{5}{8}$ "; 222, $\frac{11}{16}$ "; 224, $\frac{3}{4}$ "; H-260 Flex Ratchet, H-283 Speed Handle, H-289 Universal Joint, 2 Extensions H-271, 3" and H-272, 6". Combination Wrenches C-12, $\frac{3}{8}$ "; C-14, $\frac{7}{16}$ "; C-16, $\frac{1}{2}$ "; C-18, $\frac{9}{16}$ "; C-20, $\frac{5}{8}$ "; C-22, $\frac{11}{16}$ "; C-24, $\frac{3}{4}$ "; C-28, $\frac{7}{8}$ ". Three Screw Drivers, SS-64, $6\frac{1}{2}$ "; RS-8S, 3"; SS-81, 14". Two Pliers, 712, 6" Slip Joint, 714, Lock Ring. Three Files, 12" flat, 10" round, 12" square; DA-12, 12" Adjustable Wrench, PW-10, 10" Pipe Wrench, F-1214, $\frac{3}{8}$ " x $\frac{1}{16}$ " Flex Wrench, BP-16, 1 lb. Ball Pein Hammer, PT-16, 12 oz. Soft Tip Hammer; three Chisels, CC-8, $\frac{3}{16}$ " bit; CC-12, $\frac{1}{16}$ " bit; CC-20, $\frac{3}{32}$ " bit; 3 Taper Punches, TP-8, $\frac{1}{8}$ " bit; TP-12, $\frac{1}{16}$ " bit; TP-20, $\frac{1}{32}$ " bit and one PB-43 Pry Bar all in the De Luxe Mechanics Chest.



No. 104-A—Super Service Set complete in 107 De Luxe Chest, 90 lbs.

No. 107—Deluxe Chest with Tote Tray. Weight 63 lbs. Deluxe Chest is illustrated and described on page 58.



MECHANICS SET No. 185

$\frac{1}{2}$ " AND $\frac{3}{8}$ " SQUARE DRIVE
40 Pieces

This set contains a complete combination of sockets and handles considered most practical for general repair work. A set that will be the pride of the most experienced mechanic or the beginner alike. Only essential tools are included. The chest is small but large enough to carry additional tools and sturdy enough to give long service. This set consists of $\frac{1}{2}$ " Drive Sockets and Handles: 114, $\frac{3}{16}$ "; 116, $\frac{1}{2}$ "; 118, $\frac{9}{16}$ "; 119, $\frac{19}{32}$ "; 120, 121, $\frac{21}{32}$ "; 122, 124, 125, 126, $\frac{13}{16}$ "; 128, $\frac{7}{8}$ "; 130, 132, 1", 134, $\frac{11}{16}$ "; 136, $\frac{11}{8}$ "; 138, $\frac{13}{16}$ "; 140, $\frac{13}{4}$ "; H-183 Speed Handle, H-189 Univ. Jt., H-176 Flex Handle, H-187 Sliding Tee, H-163 Ratchet, H-171, 3"; H-172, 6"; H-173, 10" Extensions; $\frac{3}{8}$ " Drive Sockets and Handles: 212, $\frac{3}{8}$ "; 214, $\frac{7}{16}$ "; 216, $\frac{1}{2}$ "; 218, $\frac{9}{16}$ "; 220, $\frac{5}{8}$ "; 222, $\frac{11}{16}$ "; 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000.

Speed Handle, H-189 Univ. Jt., H-176 Flex Handle, H-187 Sliding Tee, H-163 Ratchet, H-171, 3"; H-172, 6"; H-173, 10" Extensions; $\frac{3}{8}$ " Drive Sockets and Handles: 212, $\frac{3}{8}$ "; 214, $\frac{7}{16}$ "; 216, $\frac{1}{2}$ "; 218, $\frac{9}{16}$ "; 220, $\frac{5}{8}$ "; 222, $\frac{11}{16}$ "; 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289 Univ. Jt., H-271, 3"; H-272, 6" and H-273, 10" Extensions in the 199 Mechanics Chest which is 21" x 7 $\frac{1}{4}$ " x 4 $\frac{1}{2}$ ". No. 185—Mechanics Set in Metal Chest. Wt. 22 $\frac{3}{4}$ lbs. No. 199—Mechanics Chest (only). Wt. 9 $\frac{3}{4}$ lbs.



NUMBER 100-B MASTER SET

$\frac{1}{2}$ " AND $\frac{3}{8}$ " SQUARE DRIVE
95 Pieces

A complete set of essential tools which covers a range of uses from ignition and carburetor work to heavy jobs on trucks and tractors. Includes parts as follows:

$\frac{1}{2}$ " Drive Units 112, $\frac{3}{8}$ "; 114, $\frac{7}{16}$ "; 116, $\frac{1}{2}$ "; 118, $\frac{9}{16}$ "; 119, $\frac{19}{32}$ "; 120, $\frac{5}{8}$ "; 121, $\frac{21}{32}$ "; 122, $\frac{11}{16}$ "; 124, 125, 126, 127, 128, $\frac{7}{8}$ "; 130, 131, 132, 133, 134, $\frac{11}{16}$ "; 136, $\frac{11}{8}$ "; 138, $\frac{13}{16}$ "; 140, $\frac{13}{4}$ "; S-114, $\frac{7}{16}$ "; S-116, $\frac{9}{16}$ "; S-118, $\frac{11}{16}$ "; S-120, $\frac{5}{8}$ "; S-122, 1"

$\frac{1}{2}$ " S-124, $\frac{3}{4}$ " eight point; H-176 Flex Handle, H-163 Ratchet, H-189 Univ. Jt., H-172, 6" and H-173, 10" Extensions; $\frac{3}{8}$ " Drive Units 212, $\frac{3}{8}$ "; 214, $\frac{7}{16}$ "; 216, $\frac{1}{2}$ "; 218, $\frac{9}{16}$ "; 220, $\frac{5}{8}$ "; 222, $\frac{11}{16}$ "; 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289 Univ. Jt., H-261 Ratchet, H-283 Speed Handle and Extensions H-271, 3"; H-272, 6"; H-273, 10"; H-377 Flex Handle, H-363 Ratchet, H-373, 10" Extension. Four Screw Drivers, SS-61, 11 $\frac{1}{4}$ "; SS-42, 7"; RS-8S, 3"; SS-83, 9 $\frac{1}{2}$ "; No. 712, 6" Pliers, Box Wrench Set No. BA-5, No. 0-10 Tappet Set. No. ES-7 Open End Set. No. PC-25 Punch and Chisel Set, No. BP-32, 2 lb. Ball Pein Hammer, PB-43 Pry Bar, 860 Thickness Gauge, 866 Ignition Gauge, PT-16, 12 oz. Soft Tip Hammer.

No. 100-B—Master Set complete in 101 Chest. Wt. 88 lbs.

MASTER SET No. 102-B

$\frac{1}{2}$ " AND $\frac{3}{8}$ " SQUARE DRIVE
68 Pieces

An excellent assortment of tools that any mechanic would be proud to own. It has 68 units as follows: $\frac{1}{2}$ " Drive Units 112, $\frac{3}{8}$ "; 114, $\frac{7}{16}$ "; 116, $\frac{1}{2}$ "; 118, $\frac{9}{16}$ "; 119, $\frac{19}{32}$ "; 120, $\frac{5}{8}$ "; 121, $\frac{21}{32}$ "; 122, $\frac{11}{16}$ "; 124, $\frac{3}{4}$ "; 125, 126, $\frac{13}{16}$ "; 128, $\frac{7}{8}$ "; 130, 131, $\frac{13}{16}$ "; 132, 1", 134, $\frac{11}{16}$ "; 136, $\frac{11}{8}$ "; 138, $\frac{13}{16}$ "; 140, $\frac{13}{4}$ "; S-114, $\frac{7}{16}$ "; S-116, $\frac{9}{16}$ "; S-118, $\frac{11}{16}$ "; S-120, $\frac{5}{8}$ "; S-122, $\frac{11}{16}$ "; S-124, $\frac{3}{4}$ " eight point. H-176 Flex Handle, H-163 Ratchet, H-189 Univ. Joint H-172 6" and H-173, 10" Extensions, $\frac{3}{8}$ " Drive Units: 212, $\frac{3}{8}$ "; 214, $\frac{7}{16}$ "; 216, $\frac{1}{2}$ "; 218, $\frac{9}{16}$ "; 220, $\frac{5}{8}$ "; 222, $\frac{11}{16}$ "; 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289 Univ. Joint, H-261 Ratchet, H-283 Speed Handle, H-271, 3"; H-272, 6" and H-273, 10" Extensions. No. 712, 6" Pliers, No. SS-42, 7"; SS-61, 11 $\frac{1}{4}$ "; RS-8S, 3"; SS-83, 9 $\frac{1}{2}$ "; Screw Drivers: Combination Wrenches: C-12, $\frac{3}{8}$ "; C-14, $\frac{7}{16}$ "; C-16, $\frac{1}{2}$ "; C-18, $\frac{9}{16}$ "; C-20, $\frac{5}{8}$ "; C-22, $\frac{11}{16}$ "; C-24, $\frac{3}{4}$ "; C-26, $\frac{13}{16}$ "; No. PC-25 Punch and Chisel Set, BP-16, one lb. Ball Pein Hammer, PB-43 Pry Bar and 860 Thickness Gauge in the 110 Mechanics Chest.

No. 102-B—Master Set in 110 Chest. Wt. 58 lbs.





HEAVY DUTY SOCKETS

3/4" Square Drive

Straight Walls

Thin, straight-wall sockets, hot-forged from Chrome Vanadium steel and the last word in design and quality will appeal to every discriminating mechanic. These sockets are accurately machined and finely finished. They are light yet are rugged enough for severe use. No maintenance man working on truck, tractor, or industrial work can afford to be without a set of these fine tools.

| Wrench No. | Opening Size | Length | Outside Diameter | | Weight per Doz. | |
|------------|--------------|---------|------------------|-----------|-----------------|-----|
| | | | Socket End | Drive End | Lbs. | Oz. |
| 328 | 7/8" | 13 1/2" | 1 1/2" | 1 1/2" | 4 | 8 |
| 330 | 1" | 13 1/2" | 1 1/2" | 1 1/2" | 4 | 8 |
| 332 | 1 1/8" | 13 1/2" | 1 1/2" | 1 1/2" | 4 | 8 |
| 334 | 1 1/4" | 21 1/2" | 1 1/2" | 1 1/2" | 5 | 4 |
| 336 | 1 1/2" | 21 1/2" | 1 1/2" | 1 1/2" | 6 | 6 |
| 338 | 1 3/8" | 21 1/2" | 1 1/2" | 1 1/2" | 6 | 12 |
| 340 | 1 3/4" | 21 1/2" | 1 1/2" | 1 1/2" | 7 | 8 |
| 342 | 1 7/8" | 21 1/2" | 1 1/2" | 1 1/2" | 9 | 12 |
| 344 | 2" | 21 1/2" | 1 1/2" | 1 1/2" | 10 | 8 |
| 346 | 2 1/8" | 21 1/2" | 1 1/2" | 1 1/2" | 11 | 4 |
| 348 | 2 1/4" | 21 1/2" | 1 1/2" | 1 1/2" | 12 | ... |
| 352 | 2 1/2" | 21 1/2" | 2 1/4" | 2 1/4" | 15 | ... |
| 354 | 2 3/4" | 21 1/2" | 2 1/4" | 2 1/4" | 18 | ... |
| 356 | 3" | 21 1/2" | 2 1/4" | 2 1/4" | 18 | ... |
| 358 | 3 1/8" | 21 1/2" | 2 1/4" | 2 1/4" | 21 | ... |
| 360 | 3 1/4" | 21 1/2" | 2 1/4" | 2 1/4" | 24 | ... |
| 364 | 3 1/2" | 3" | 2 1/4" | 1 1/2" | 27 | ... |
| 368 | 3 3/4" | 3 1/4" | 2 1/4" | 2" | 30 | ... |
| 370 | 4" | 3 1/4" | 2 1/4" | 2" | 33 | ... |
| 372 | 4 1/8" | 3 1/4" | 2 1/4" | 2" | 39 | ... |
| 376 | 4 1/4" | 3 3/4" | 3 1/4" | 2 1/4" | 42 | ... |

TRACK BOLT SOCKETS

Heavy, thick-walled, hexagon sockets designed especially for use in removing track bolts on Caterpillar tracks. Service men will find that a great deal of time can be saved and the job simplified with these special sockets. Due to the abuse and hard usage they must undergo these sockets are not guaranteed against breakage or wear.

No. TD-6—Set of one each. Wt. 3 3/4 lbs.



| No. | Size | Length | O D | Weight |
|--------|--------|--------|--------|------------|
| TD-320 | 5/8" | 1 3/4" | 1 1/4" | 8 oz. |
| TD-324 | 3/4" | 1 3/4" | 1 1/2" | 7 1/2 oz. |
| TD-326 | 13/16" | 1 3/4" | 1 3/4" | 8 oz. |
| TD-328 | 7/8" | 2" | 1 1/2" | 11 1/2 oz. |
| TD-330 | 1" | 2" | 1 1/2" | 10 1/2 oz. |
| TD-336 | 1 1/8" | 2 1/4" | 1 7/8" | 17 oz. |

SLIDING TEE HANDLE

3/4" Square Drive

Used with Heavy Duty Extensions this handle makes a good speed T-wrench for spinning nuts on and off. Very practical in all kinds of maintenance work. Indispensable in every heavy duty socket set.

No. H-387—Sliding Tee Handle 20" long. Wt. 3 lbs.

HEAVY DUTY EXTENSIONS

3/4" Square Drive

OTC Heavy Duty Extensions are upset-forged from high alloy steel and will not twist or bend. They are necessities in every socket set and are furnished in popular lengths.

No. H-374—Extension 18" long. Wt. 2 lbs.

No. H-373—Extension 10" long. Wt. 1 1/2 lbs.

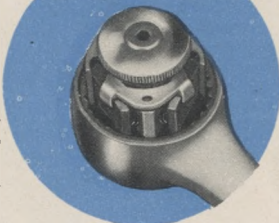
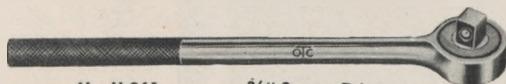
No. H-371—Extension 4 1/2" long. Wt. 12 oz.

*New***HEAVY DUTY REVERSIBLE RATCHET****No. H-363** **$\frac{3}{4}$ " SQUARE DRIVE**

The new OTC reversible heavy duty ratchet is the last word in quality, design and rugged strength. It is smooth-operating, trouble-free and is fully enclosed to prevent grease and grit from clogging the works. It has a short throw to permit work in close places yet it is long enough to provide ample leverage. The knurled reversing button on top makes it easy to reverse the ratchet with a quick flip of the fingers.

Truck, tractor and industrial maintenance men will find the ratchet exceptionally well suited to their needs.

No. H-363—Reversible Heavy Duty Ratchet, 20" long. Wt. $4\frac{1}{2}$ lbs.

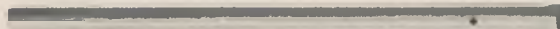
**HEAVY DUTY RATCHET****(Push-Thru Plug Type)****No. H-361** **$\frac{3}{4}$ " Square Drive**

One of the lightest, strongest, toughest heavy duty ratchets ever built. An old stand-by that has been popular with thousands of service men for years. It is well balanced for ease of handling and designed for fast, efficient work on heavy equipment. Its small head and 36 teeth allows a short throw and provides adequate clearance in close places.

Four dogs always in engagement give it plenty of strength to withstand its 20" of leverage. Fully sealed to keep out grit and grease and to eliminate excessive wear from those causes.

No. H-361—Heavy Duty Ratchet. Wt. 4 lbs.

No. H-362— $\frac{3}{4}$ " Drive Ratchet Plug (only). Wt. 4 oz.

**Heavy Duty Reversible Ratchet No. P-61**

This ratchet is a dual-duty tool. It has a $1\frac{1}{2}$ " hexagon opening which permits its use on $1\frac{1}{2}$ " hex nuts over a shaft or screw, or for conventional use. Two adaptors can be purchased with it which adapt it for use with either $\frac{3}{4}$ " or 1" drive detachable sockets. A tubular handle, 24" long is also available for use with it to give extra leverage where it is needed.

The photograph above shows the component parts of this tool. The No. P-61 Ratchet is recommended for use with OTC Push-Pullers No. 930 and 938 shown on Page 8 and also for the Universal Sleeve Puller shown on Page 37.

The P-61-6 Ratchet Plug adapts the ratchet for use with $\frac{3}{4}$ " square drive sockets and the P-61-10 adapts it for use with 1" square drive sockets. Both adaptors and the Tubular Handle should be purchased with this tool.

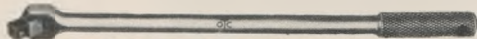


No. P-61 Reversible Ratchet Head (only). Wt. $5\frac{1}{2}$ lbs.

No. P-61-6 Adaptor $1\frac{1}{2}$ " Hex. x $\frac{3}{4}$ " Square. Wt. $1\frac{1}{2}$ lbs.

No. P-61-10 Adaptor $1\frac{1}{2}$ " Hex. x 1" Square. Wt. $1\frac{1}{2}$ lbs.

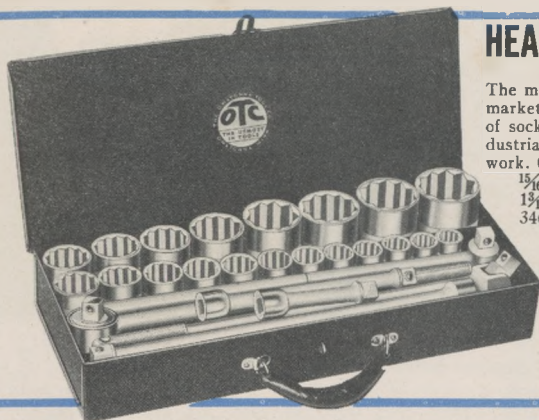
No. M-28 Tubular Handle, 24" long. Wt. $2\frac{3}{4}$ lbs.

HEAVY DUTY FLEX HANDLE**No. H-377** **$\frac{3}{4}$ " SQUARE DRIVE**

A well balanced, ruggedly constructed socket handle that cannot be matched for work on main bearings, con rods, head bolts and other maintenance work on trucks, tractors and industrial machinery of all kinds. It is light and easy

to handle yet strong and sturdy enough to withstand hard usage. It is 20" long, drop-forged from Chrome Alloy steel and heat-treated over all for long service.

No. H-377—Flex Handle. Wt. $3\frac{1}{2}$ lbs.



HEAVY DUTY SET HD-385

$\frac{3}{4}$ " SQUARE DRIVE 27 PIECES

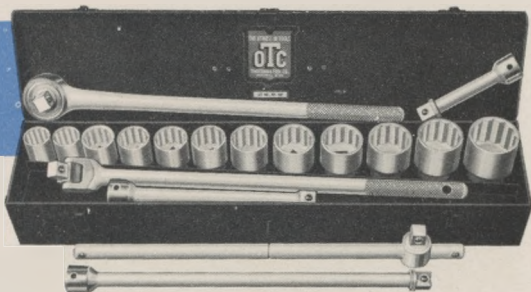
The most complete Heavy Duty set on the market today. It carries a complete range of sockets and handles and is ideal for industrial, farm implement and automotive work. Consists of 21 sockets: 328, $\frac{7}{8}$ " ; 330,

$\frac{15}{16}$ " ; 332, 1" ; 334, $1\frac{1}{16}$ " ; 336, $1\frac{1}{8}$ " ; 338, $1\frac{3}{16}$ " ; 340, $1\frac{1}{4}$ " ; 342, $1\frac{5}{16}$ " ; 344, $1\frac{3}{8}$ " ; 346, $1\frac{1}{2}$ " ; 348, $1\frac{5}{8}$ " ; 352, $1\frac{3}{4}$ " ; 354, $1\frac{11}{16}$ " ; 356, $1\frac{3}{4}$ " ; 358, $1\frac{5}{8}$ " ; 360, $1\frac{7}{8}$ " ; 364, 2" ; 368, $2\frac{1}{8}$ " ; 370, $2\frac{3}{16}$ " ; 372, $2\frac{1}{4}$ " ; 376, $2\frac{3}{8}$ " ; H-363 Ratchet, H-377 Flex Handle, H-387 Tee Handle and Extensions H-371, $4\frac{1}{2}$ " ; H-373, 10" ; H-374, 18" in the H-396 Metal Case which is $24\frac{1}{2}$ " x 9" x $3\frac{1}{2}$ ". No. HD-385—Socket Set complete in Metal Case. Wt. 51 lbs.

HEAVY DUTY SOCKET SET NUMBER HD-381

$\frac{3}{4}$ " SQUARE DRIVE 19 PIECES

A very complete combination that would be practical in any shop doing heavy maintenance work. Only the popular sizes of sockets are included but the set can be added to as the need arises. Contains 12 sockets: 334, $1\frac{1}{16}$ " ; 336, $1\frac{1}{8}$ " ; 340, $1\frac{1}{4}$ " ; 342, $1\frac{5}{16}$ " ; 344, $1\frac{3}{8}$ " ; 346, $1\frac{7}{16}$ " ; 348, $1\frac{1}{2}$ " ; 352, $1\frac{3}{4}$ " ; 354, $1\frac{11}{16}$ " ; 356, $1\frac{3}{4}$ " ; 358, $1\frac{5}{8}$ " ; 364, 2" ; H-363 Ratchet, H-387 Sliding Tee Handle, H-377 Flex Handle, H-371, $4\frac{1}{2}$ " Extension, H-373, 10" Extension, H-374, 18" Extension in the H-391 Metal Case which is 26 " x $5\frac{1}{2}$ " x 3". No. HD-381—Socket Set complete in Metal Case. Wt. 35 lbs.

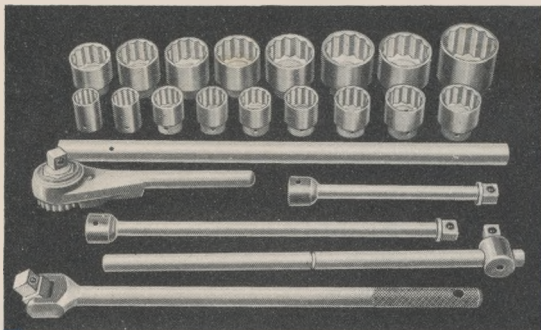


NO. HD-383 SOCKET SET

$\frac{3}{4}$ " SQUARE DRIVE 11 PIECES

A compact utility heavy duty socket set that includes eight most popular sizes and two most popular handle units. A good set to start with as it can be added to as demands require. Contains 8 sockets: 334, $1\frac{1}{16}$ " ; 336, $1\frac{1}{8}$ " ; 338, $1\frac{3}{16}$ " ; 340, $1\frac{1}{4}$ " ; 342, $1\frac{5}{16}$ " ; 344, $1\frac{3}{8}$ " ; 346, $1\frac{7}{16}$ " ; 348, $1\frac{1}{2}$ " with the H-377 Flex Handle and H-373, 10" Extension in Metal Case No. H-397 which is $22\frac{1}{2}$ " x $5\frac{1}{2}$ " x $2\frac{1}{2}$ ".

No. HD-383—Socket Set in Metal Case. Wt. 15 lbs.



HEAVY DUTY SOCKET SET

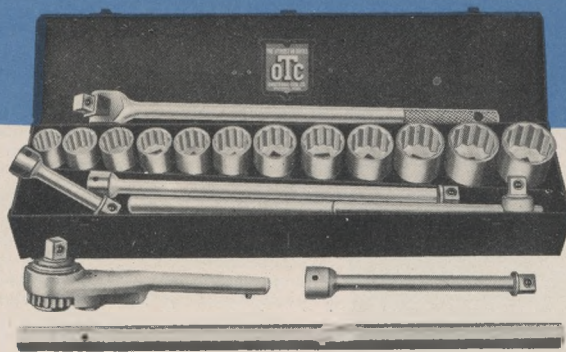
No. HD-388

3/4" SQUARE DRIVE 24 PIECES

A complete new socket set which covers a complete range of sizes and which includes the popular P-61 Reversible Ratchet. This set has all the necessary handles plus a range of socket sizes that are essential for truck, tractor or industrial maintenance operations. It consists of 24 units with the metal case as follows: 334, 1 1/16"; 336, 1 1/8"; 340, 1 1/4"; 342, 1 5/16"; 344, 1 3/8";

346, 1 7/16"; 348, 1 1/2"; 352, 1 5/8"; 354, 1 11/16"; 356, 1 3/4"; 358, 1 13/16"; 360, 1 7/8"; 364, 2"; 368, 2 1/8"; 370, 2 3/16"; 372, 2 1/4"; 376, 2 3/8"; P-61 Ratchet with P-61-6 Adaptor, M-28 Tubular Handle, H-377 Flex Handle, H-387 Sliding Tee Handle, H-373, 10" Extension, H-374, 18" Extension in the H-396 Metal Case which is 24 1/2" x 9" x 3 1/2".

No. HD-388—Heavy Duty Socket Set, complete in Case. Wt. 51 lbs.



3/4" Square Drive

A utility Heavy Duty Socket set that has been assembled especially for truck and tractor work. It carries 12 sizes of sockets which were selected because they are most frequently used in this type of maintenance work. This set consists of 20 units including 12 sockets: 336, 1 1/8"; 340, 1 1/4"; 342, 1 5/16"; 344, 1 3/8"; 346, 1 7/16";

HEAVY DUTY SOCKET SET

No. HD-382

20 PIECES

348, 1 1/2"; 352, 1 5/8"; 354, 1 11/16"; 356, 1 3/4"; 358, 1 13/16"; 360, 1 7/8"; 364, 2"; H-387 Sliding Tee Handle, H-377 Flex Handle, P-61 Reversible Ratchet with P-61-6 Adaptor Plug, M-28 Tubular Handle, H-371, 4 1/2" Extension, H-373, 10" Extension, H-374, 18" Extension in the H-391 Metal Case which is 26" x 5 1/2" x 3".

No. HD-382—Socket Set in Metal Case. Wt. 39 lbs.

MASTER SERVICE SET

No. T-625 70 Pieces

A complete hand tool set with every tool chosen particularly for the truck and tractor service man. It covers a range of sizes from $\frac{3}{16}$ " to $1\frac{1}{2}$ " and all the wrenches needed to service trucks, tractors and farm implements.

The T-625 set contains fourteen $\frac{1}{2}$ " drive sockets 114, $\frac{3}{16}$ "; 116, $\frac{1}{2}$ "; 118, $\frac{3}{8}$ "; 120, $\frac{5}{8}$ "; 122, $\frac{1}{2}$ "; 124, $\frac{3}{4}$ "; 126, $\frac{11}{16}$ "; 128, $\frac{7}{8}$ "; 130, $1\frac{1}{16}$ " and 132, 1"; twelve point and four 8 point sockets S-114, $\frac{3}{16}$ "; S-116, $\frac{1}{2}$ "; S-118, $\frac{3}{8}$ "; and S-120, $\frac{1}{2}$ " with 7 handles to fit, No. H-163 Ratchet, H-176 Flex Handle, H-13 T-Bar, H-183 Speed Handle, H-173, 10" Extension, H-172, 6" Extension and H-189 Universal Joint. Also ten $\frac{3}{4}$ " Drive Sockets 334, $1\frac{1}{16}$ "; 336, $1\frac{1}{8}$ "; 340, $1\frac{1}{4}$ "; 342, $1\frac{3}{16}$ "; 344, $1\frac{3}{8}$ "; 346, $1\frac{1}{2}$ "; 348, $1\frac{1}{2}$ "; 352, $1\frac{5}{8}$ "; 354, $1\frac{11}{16}$ " and 356, $1\frac{3}{4}$ " with 3 handles H-363 Ratchet, H-373, 10" Extension, H-371, $4\frac{1}{2}$ " Extension. Eleven combination wrenches C-14, $\frac{1}{4}$ "; C-16, $\frac{1}{2}$ "; C-18, $\frac{3}{8}$ "; C-20, $\frac{1}{2}$ "; C-22, $1\frac{1}{4}$ "; C-24, $\frac{3}{4}$ "; C-28, $\frac{7}{8}$ "; C-30, $1\frac{1}{2}$ "; C-32, 1"; C-34, $1\frac{1}{16}$ " and C-40, $1\frac{1}{4}$ ".

The following miscellaneous tools are also included: two Screw Drivers, SS-64, $6\frac{1}{2}$ " and SS-81, $13\frac{3}{4}$ ", No. H-166 Phillips Attachment, BP-32, 2 lb. Ball Pein Hammer, PT-16, 12 oz. Soft Tip Hammer, 864 Feeler Gauge, JD-10 Honing Stone, 3 files, FF-12, 12" flat, FR-10, 10" round and FS-12, 12" square, 702 Side Cutter, No. 712, 6" Slip Joint Plier, No. DA-10, 10" Adjustable Wrench, PW-10, 10" Pipe Wrench, No. 614 Snap Ring Plier, PB-45 Pry Bar, CC-24, $\frac{3}{8}$ " and CC-12, $\frac{1}{16}$ " Cold Chisels, FC-20, $\frac{5}{8}$ " Special Chisel, TP-24, $\frac{5}{16}$ " and TP-12, $\frac{3}{16}$ " Taper Punches, CP-20, $\frac{3}{8}$ " Center Punch and F-1618, $\frac{1}{2}$ " x $\frac{3}{4}$ " Flex Wrench all in the No. 110 Mechanics Chest.

No. T-625—Master Service Set in Chest. Wt. 78 lbs.

STANDARD CHEST No. 110

A sturdy, well built chest of welded construction. It has a roomy top compartment in addition to 3 drawers all 21" long and $1\frac{1}{2}$ ", 2" and 3" deep respectively mounted on compound slides. See page 59 for more details.

No. 110—Chest 22" x $8\frac{3}{4}$ " x $9\frac{1}{2}$ ". Wt. 30 lbs.

STANDARD SERVICE SET No. T-630

51 Pieces

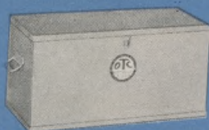
A hand tool set especially selected for men who service trucks, tractors and farm implements, less complete than the set above but which can easily be expanded by adding other tools. Contains nine 12 point $\frac{1}{2}$ " drive sockets Nos. 114, $\frac{3}{16}$ "; 116, $\frac{1}{2}$ "; 118, $\frac{3}{8}$ "; 120, $\frac{5}{8}$ "; 122, $\frac{1}{2}$ "; 124, $\frac{3}{4}$ "; 128, $\frac{7}{8}$ "; 130, $1\frac{1}{16}$ " and 132, 1" with 6 handles to fit, H-161 Ratchet, H-176 Flex Handle, H-13 T-Bar, H-183 Speed Handle, H-173, 10" and H-172, 6" Extensions. Seven 12 point $\frac{3}{4}$ " drive sockets, Nos. 334, $1\frac{1}{16}$ "; 336, $1\frac{1}{8}$ "; 340, $1\frac{1}{4}$ "; 344, $1\frac{3}{16}$ "; 346, $1\frac{3}{8}$ "; 348, $1\frac{1}{2}$ " and 352, $1\frac{5}{8}$ " with H-387 Sliding Tee and H-373, 10" Extension to fit. Six Combination Wrenches, C-14, $\frac{1}{4}$ "; C-16, $\frac{1}{2}$ "; C-18, $\frac{3}{8}$ "; C-20, $\frac{1}{2}$ "; C-22, $1\frac{1}{4}$ " and C-24, $\frac{3}{4}$ ".

Miscellaneous tools included are: two Screw Drivers SS-64, $6\frac{1}{2}$ " and SS-81, $13\frac{3}{4}$ ", No. BP-32, 2 lb. Hammer, No. PT-16 Soft Tip Hammer, 860 Feeler Gauge, JD-10 Honing Stone, 3 Files, FF-12, 12" flat, FR-10, 10" round and FS-12, 12" square, 702 Side Cutter, DA-10, 10" Adjustable Wrench, PW-10, 10" Pipe Wrench, PB-43 Pry Bar, CC-24, $\frac{3}{8}$ " and CC-12, $\frac{1}{16}$ " Cold Chisels, TP-24, $\frac{5}{16}$ " and TP-12, $\frac{3}{16}$ " Taper Punches and CP-20, $\frac{3}{8}$ " Center Punch all in the No. 110 Mechanics Chest.

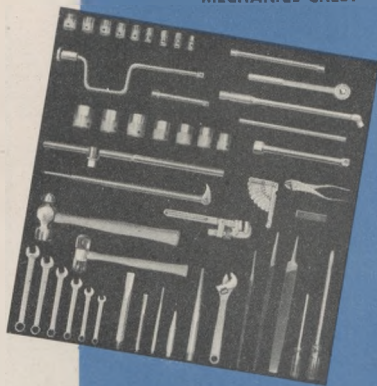
No. T-630—Standard Set in Chest. Wt. 62 lbs.



Tractor
Service
Sets

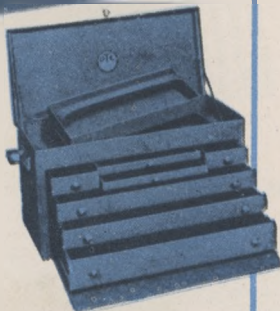


No. 110
STANDARD
MECHANICS CHEST

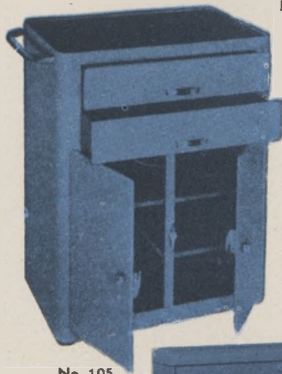




No. 106



No. 107



No. 105



No. 101

OTC DELUXE TOOLMASTER

Engineered and designed by mechanics particularly for mechanics who appreciate fine things the TOOLMASTER utilizes all available space and provides plenty of room for a complete set of tools with room to spare. A combination of the 105 Toter and 101 Chest.

All drawers are roomy and slide on compound slides which roll freely even when the drawers are loaded. Built-in locks make the TOOLMASTER a safe depository for valuable equipment. Rubber-tired, ball bearing casters carry this unit over rough cement floors easily and silently while the rigid chrome handle facilitates moving the entire unit.

No feature of design or workmanship has been forgotten to provide an attractive, efficient, sturdy roll-away toolsafe for the discriminating service man.

The MASTERTOTER is 36" high, 18" deep and 27" wide.

The MASTERCHEST is 13" high, 10" deep and 26" wide.

No. 106—DeLuxe Toolmaster. Wt. 143 lbs.

DELUXE MECHANICS CHEST

Utilizing every bit of space this new, roomy chest is the last word in tool box design. Finished in blue crackle. Two small side drawers are 11" x 4 3/4" x 2". Shallow center drawers for micrometers and other instruments are 11" x 12" x 1". The bottoms of these drawers are sprayed with felt. The three bottom drawers are 11" x 23" x 2" and 11" x 23" x 3" respectively. All drawers operate on compound slides for smooth operation. Built-in lock.

No. 107—DeLuxe Chest complete, 26" x 14 1/2" x 12". Wt. 63 lbs.

No. 107-A—Tote Tray (only) 17 1/2" x 8" x 2 1/4". Wt. 3 lbs.

OTC MASTER TOTER

The new OTC MASTERTOTER is the last word in streamlined beauty and practical design.

Two roomy drawers each 22 1/2" x 17 1/2" x 3 1/2" and mounted on compound slides furnish sufficient space for small tools, while the shelves will accommodate any bulky equipment such as electric drills, etc. This cabinet is fully enclosed and can be securely locked. Rubber-tired ball bearing casters allow freedom and silence of movement. Well built, 36" high, 18" deep and 27" wide.

No. 106—Mastertoter. Wt. 100 lbs.

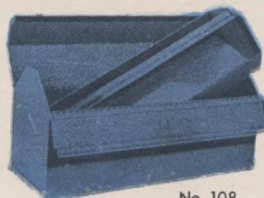
OTC MASTERCHEST

The OTC MASTERCHEST is built to provide an abundance of room for a complete set of hand tools. It is roomy with well-spaced compartments to permit segregation of the different types of wrenches.

Four drawers, 16 1/2" x 9 1/2" x 2", 9 1/2" x 7 1/4" x 2", 9 1/2" x 7 1/4" x 3" and 9 1/2" x 7 1/4" x 3" provide plenty of space for small tools while a larger compartment allows room for larger tools. The removable tray 25" x 8" x 2" has two socket divisions where a complete set of sockets can be kept. Drawers run on compound slides. The blue crackle finish and the streamline design makes this chest an attractive addition to any service man's outfit. Built-in lock.

No. 101—Master Chest 13" x 10" x 26". Wt. 44 lbs.

No. 101-A—Tote Tray (only) 25" x 8" x 2". Wt. 4 lbs.



No. 108

STANDARD TOOLMASTER No. 117

This combination includes the No. 109 Standard Tooltoter and the beautiful No. 101 Masterchest.

Providing ample space for larger tools and room to spare for small tools this unit will appeal to many service men as an economical one. Medium priced yet sufficiently large and roomy it will fulfill all requirements under most exacting shop conditions. All drawers operate on compound slides.

Every shop should be equipped with one or more OTC Tooltoters. A variety of selections is available to suit every service man's needs. Equipped with 3" steel casters.

No. 117—Standard Toolmaster. Wt. 117 lbs.

STANDARD TOOLTOTER No. 109

A compact, roomy Toter of medium size for the mechanic or machinist who requires a convenient and safe place in which to store his equipment. The new OTC Standard Toter is sturdily built. Its top deck is large enough to accommodate a tool chest or provide a portable bench or table on which tools can be laid while in use. Its two doors when open, swing back out of the way and reveal one roomy drawer 24½" long, 11" wide and 4½" deep and mounted on compound slides. The lower compartment has a convenient shelf for reamer sets and other tools while plenty of space is reserved for large equipment and electric drills, etc.

This cabinet is completely enclosed and can be securely locked with a padlock. It is 26½" wide, 15" deep and 31" high. It is attractively finished in blue crackle and will add to the appearance of any shop. Equipped with 3" steel casters.

No. 109—Standard Tooltoter. Wt. 73 lbs.

STANDARD TOOLMASTER No. 135

This combination of the No. 109 Standard Toter and the No. 110 Standard Chest makes an ideal and economical unit for the discriminating service man. It provides a safe and convenient storage place for a complete set of hand tools. In addition, it is an attractive piece of equipment and will enhance the appearance of any shop.

It is convenient and efficient and can be securely locked. Heavy large casters permit rolling it to any position in the shop making all necessary hand tools easily available at the job. The unit stands approximately 36" high.

Built of heavy gauge metal and of welded construction throughout. All drawers operate on compound slides. Beautiful blue, crackle finish. Equipped with 3" steel casters.

No. 135—Standard Toolmaster. Wt. 103 lbs.

STANDARD MECHANICS CHEST No. 110

Built of heavy gauge metal and of welded construction throughout, the new OTC Standard Chest will meet every requirement for a medium priced tool chest. It is compactly built to provide a maximum of storage space and will accommodate a great many small hand tools. A socket compartment runs all the way across the top tray to hold a complete set of standard sockets. There is an additional small compartment for junior sockets as well. The top tray is 2¼" deep.

Three drawers all 21" long, and 1¼", 2" and 3" deep respectively which operate on compound slides provide room for socket handles, end wrenches, box wrenches, screw drivers, etc.

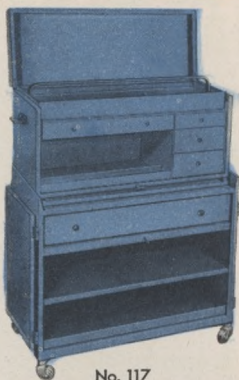
The box itself is 22" long, 8¾" wide, 9½" deep.

No. 110—Standard Chest. Wt. 30 lbs.

GABLE TOP MECHANICS CHEST No. 108

An inexpensive chest but substantially built of heavy gauge steel and welded construction throughout. There is plenty of room for a complete set of tools and the lift-out carrying tray holds a full range of sockets and handles. Corners are reinforced for long life. This chest is 19" long, 7" wide and 9" deep.

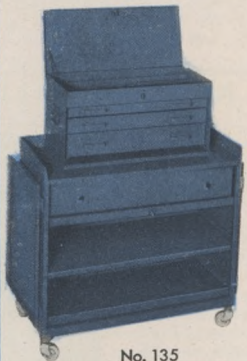
No. 108—Gable Top Mechanics Chest. Wt. 10 lbs.



No. 117



No. 109



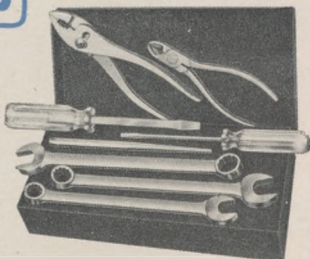
No. 135



No. 110



UTILITY SETS



No. X-49

KAR-KIT FOR DAD

An extremely handy set of tools and an ideal gift for Fathers Day, Christmas or his birthday. Can be carried in the glove compartment of the car for quick adjustments and repairs. Can also be used on many other jobs—the LAWN MOWER, WASHING MACHINE, OUTBOARD MOTOR, MOTOR BOAT, AIRPLANE and other equipment.

Every tool in this set is of high quality, beautifully finished and built for professional mechanics. It is a set that will last a lifetime and one any man will be proud to own. It consists of ten items including a substantial metal case No. K-48 which is 9" long, 4 1/4" wide and 1 3/4" deep. The set contains one each SS-84 Screw Driver, RS-42 Screw Driver, 712 Slip Joint Plier, 700-A Diagonal Cutter, TP-10 Taper Punch, C-16 1/2", C-18 3/16" and C-20 5/8" Combination Wrenches.

No. X-49—KAR-KIT. Wt. 3 lbs.

AUTOMOBILE SET

No. A-600

A UTILITY SET that every car owner should carry in his car at all times for changing tires, minor adjustments and emergency repairs. Each tool in the set is of high quality and will last a lifetime if properly used.

As illustrated this set contains one each, No. 706—10" Adjustable Water Pump Plier; No. 712—6" Slip Joint Plier; No. DA-8—8" Adjustable Wrench; No. PH-2—No. 2 Point Phillips Screw Driver, 1/4" bit; No. SS-83—9 1/2" long square shank Screw Driver in a leatherette roll. Both Screw Drivers have the shock proof fire resisting plastic handles.

No. A-600—Automobile Set. Wt. 2 lbs.



KITCHEN-KIT

For MOTHER

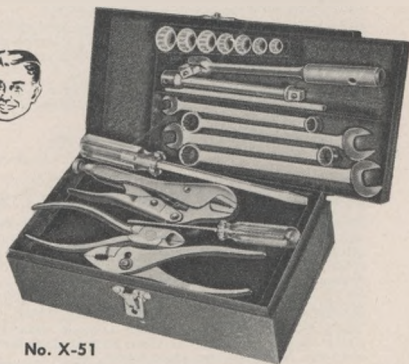
No. X-48

Now Mother can have a good set of tools in the kitchen for her very own! How often has she looked for a Screw Driver or a pair of pliers only to find that the men of the house have carried them away.

This set is compact—just right for the kitchen drawer, and just what she needs for fixing the LIGHT CONNECTIONS, FOOD MIXER, VACUUM CLEANER, SEWING MACHINE and other household equipment.

Every tool in the set is of high quality and built to last a lifetime. The set consists of one each SS-84 Screw Driver, RS-31 Screw Driver, 700 Diagonal Cutter, 712 Slip Joint Plier in an attractive Metal Case No. K-46.

No. X-48—KITCHEN-KIT. Wt. 1 1/2 lbs.



No. X-51

MECHANI-KIT

For Brother

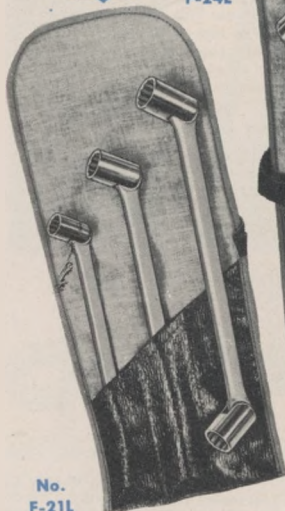
A real professional set of tools that will appeal equally well to all male members of the family. A utility set of quality tools that will last a long time and which will prove indispensable for fixing the CAR, OUTBOARD MOTOR, AIRPLANE, MOTORCYCLE, MOTOR SCOOTER and other mechanical equipment.

This set contains 20 items including an attractive Metal Case No. K-50, 10 1/2" long, 6" wide and 3 1/2" deep with a removable tray. The set consists of 7 sockets from 3/8" to 3/4" with a Flex Handle and 6" Extension to fit, an SS-83 Screw Driver, RS-42 Screw Driver, 712 6" Slip Joint Plier, 700-A 5" Diagonal Cutter, 717 Vise Grip Wrench, C-14 1/4", C-16 1/2", C-18 3/8" and C-20 5/8" Combination Wrenches.

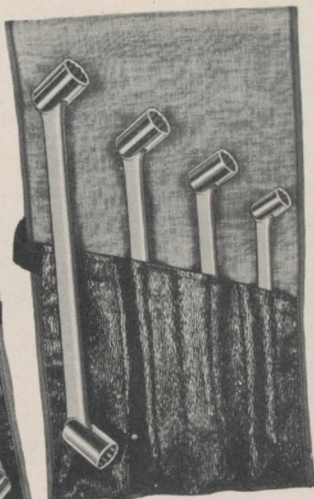
No. X-51—Mechanics Kit. Wt. 7 1/4 lbs.



No.
F-24L



No.
F-21L



No.
F-25L



IMPROVED FLEX WRENCHES

Combining the good features of a box wrench with the practical usefulness of a universal socket, these OTC Flex Wrenches have become extremely popular with maintenance men in every industry.

The sockets are extra deep, hot forged with thin straight walls for maximum clearance and they flex over to any position within a 180° radius of the handle. This permits work on many nuts not accessible with conventional wrenches. These wrenches are ideal for work on aircraft, automobiles, trucks, tractors and machine tools.

No. F-21—Set contains F-1214, F-1618, F-1820. Wt. 1½ lbs.

No. F-21L—No. F-21 Set in Leatherette Kit. Wt. 1½ lbs.

No. F-24—Set Contains F-1214, F-1618, F-1820, F-2224.

Wt. 2 lbs.

No. F-24L—No. F-24 Set in Leatherette Kit. Wt. 2 lbs.

No. F-25—Set contains F-1214, F-1618, F-1820, F-2224, F-2628. Wt. 2½ lbs.

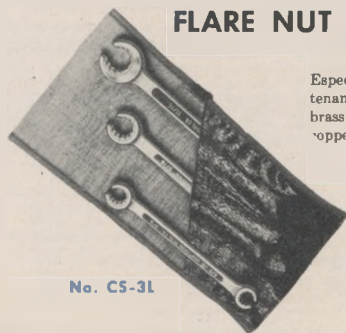
No. F-25L—No. F-25 Set in Leatherette Kit. Wt. 2½ lbs.

No. F-26—Set contains F-1214, F-1618, F-1820, F-2224, F-2628, F-3032. Wt. 3 lbs.

No. F-26L—No. F-26 Set in Leatherette Kit. Wt. 3 lbs.

| No. | Sizes | Length | Weight |
|--------|----------------|---------|------------|
| F-1214 | 3/8" - 7/16" | 6 1/4" | 3 oz. |
| F-1618 | 1/2" - 9/16" | 7 1/2" | 5 oz. |
| F-1820 | 5/8" - 11/16" | 8 1/2" | 7 oz. |
| F-2022 | 3/4" - 1 1/16" | 10" | 10 oz. |
| F-2224 | 1 1/8" - 3/4" | 9 3/4" | 12 oz. |
| F-2628 | 1 3/8" - 7/8" | 10 3/4" | 1 lb. |
| F-3032 | 1 1/2" - 1" | 12" | 1 1/4 lbs. |

FLARE NUT WRENCHES



No. CS-3L



Especially useful in aviation, refrigeration, automotive and tractor maintenance, these wrenches prevent rounding off the corners and damaging soft brass flare nuts. The milled opening permits the wrench to be slipped over copper tubing used on fuel, oil and vacuum lines and to tighten the flare nuts.

Excellent additions to any service man's tool kits.

No. CS-3—Set of 3 Wrenches. Wt. 3/4 lb.

No. CS-3L—No. CS-3 Set in Leatherette Kit. Wt. 3/4 lb.

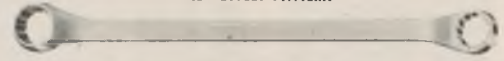
| No. | Sizes | Length | Slot | Weight |
|---------|---------------|--------|--------------|--------|
| CS-1214 | 3/8" - 7/16" | 5 1/2" | 3/16" - 1/4" | 2 oz. |
| CS-1618 | 1/2" - 9/16" | 6" | 3/16" - 1/4" | 3 oz. |
| CS-2022 | 5/8" - 11/16" | 8" | 3/16" - 1/4" | 4 oz. |



BOX WRENCHES

Double offset or 45° pattern box wrenches are offered in eight different combinations. This is a very popular type wrench designed to clear obstructions and give clearance around the nut to be turned. Thin side walls and depth of wrench head offset makes it possible to reach countersunk or imbedded nuts which might otherwise be inaccessible. Each end is chamfered on both top and bottom so the wrench can be used either way.

45° OFFSET PATTERN




| Wrench No. | Size Openings | For U. S. Std. Nuts | For Hex. Cap Screws | For S. A. E. Nuts and Screws | Length | Weight per Doz. Lbs. Ozs. |
|------------|--------------------------------------|---------------------|---------------------|------------------------------|--------------------|---------------------------|
| B-1214 | $\frac{3}{8}$ " x $\frac{1}{16}$ " | ... | ... | ... | 7 $\frac{1}{2}$ " | 1 8 |
| B-1416 | $\frac{1}{2}$ " x $\frac{1}{16}$ " | ... | ... | ... | 8" | 2 8 |
| B-1618 | $\frac{5}{8}$ " x $\frac{1}{16}$ " | ... | ... | ... | 8 $\frac{3}{4}$ " | 3 8 |
| B-1820 | $\frac{9}{16}$ " x $\frac{1}{16}$ " | ... | ... | ... | 9" | 3 8 |
| B-2022 | $\frac{5}{8}$ " x $\frac{1}{16}$ " | ... | ... | ... | 10" | 4 8 |
| B-2024 | $\frac{5}{8}$ " x $\frac{1}{16}$ " | ... | ... | ... | 11" | 6 8 |
| B-2425 | $\frac{3}{4}$ " x $\frac{1}{16}$ " | ... | ... | ... | 11 $\frac{1}{2}$ " | 6 8 |
| B-2428 | $\frac{3}{4}$ " x $\frac{1}{16}$ " | ... | ... | ... | 12" | 7 8 |
| B-2628 | $\frac{13}{16}$ " x $\frac{1}{16}$ " | ... | ... | ... | 12 $\frac{1}{2}$ " | 7 8 |
| B-3032 | $\frac{13}{16}$ " x $\frac{1}{16}$ " | ... | ... | ... | 14 $\frac{1}{2}$ " | 12 8 |
| B-3436 | $\frac{13}{16}$ " x $\frac{1}{16}$ " | ... | ... | ... | 12" | 12 8 |
| B-4042 | $\frac{13}{16}$ " x $\frac{1}{16}$ " | ... | ... | ... | 18" | 18 8 |

| | |
|------------|--|
| No. BA-3 | Set contains B-1214, B-1618, B-2022. Wt. $\frac{3}{4}$ lb. |
| No. BA-3L | No. BA-3 Set in Leatherette Kit. Wt. $\frac{3}{4}$ lb. |
| No. BA-4 | Set contains B-1214, B-1618, B-2022, B-2425. Wt. $1\frac{1}{4}$ lbs. |
| No. BA-4L | No. BA-4 Set in Leatherette Kit. Wt. $1\frac{1}{4}$ lbs. |
| No. BA-5 | Set contains B-1214, B-1618, B-2022, B-2425, B-2628. Wt. 2 lbs. |
| No. BA-5L | No. BA-5 Set in Leatherette Kit. Wt. 2 lbs. |
| No. BA-5C | Set contains B-1214, B-1618, B-2022, B-2428, B-3032. Wt. $2\frac{1}{4}$ lbs. |
| No. BA-5CL | No. BA-5C Set in Leatherette Kit. Wt. $2\frac{1}{4}$ lbs. |
| No. BA-6 | Set contains B-1214, B-1618, B-2022, B-2425, B-2628, B-3032. Wt. 3 lbs. |
| No. BA-6L | No. BA-6 Set in Leatherette Kit. Wt. 3 lbs. |
| No. BA-7 | Set contains B-1214, B-1618, B-2022, B-2024, B-2428, B-2628, B-3032. Wt. $3\frac{1}{4}$ lbs. |
| No. BA-7L | No. BA-7 Set in Leatherette Kit. Wt. $3\frac{1}{4}$ lbs. |

SHORT BOX WRENCHES

A set of four short Box Wrenches in the most popular sizes that provide access to obstructed spots on all makes of cars, trucks, tractors, etc. These wrenches are built of chrome alloy steel with thin walls, fully heat-treated to give plenty of strength with adequate clearance. Each opening is chamfered on both top and bottom to facilitate its use either way. An excellent and convenient set for the service man's pocket as a constant companion.

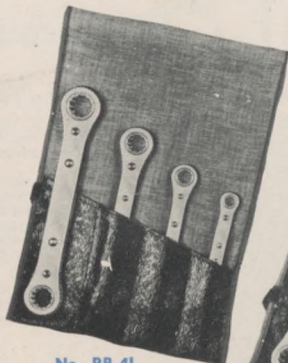


| Wrench No. | Size Openings | For U. S. Std. Nuts | For Hex. Cap Screws | For S. A. E. Nuts and Cap Screws | Length | Weight per Doz. Lbs. Ozs. |
|------------|-------------------------------------|---------------------|------------------------------------|------------------------------------|-------------------|---------------------------|
| A-1012 | $\frac{3}{8}$ " - $\frac{3}{8}$ " | ... | $\frac{3}{16}$ " | ... | 4 $\frac{1}{4}$ " | 1 8 |
| A-1214 | $\frac{3}{8}$ " - $\frac{1}{2}$ " | ... | $\frac{3}{16}$ " - $\frac{1}{4}$ " | $\frac{1}{4}$ " | 4 $\frac{3}{8}$ " | 1 8 |
| A-1618 | $\frac{1}{2}$ " - $\frac{9}{16}$ " | $\frac{1}{4}$ " | $\frac{5}{16}$ " - $\frac{3}{8}$ " | $\frac{3}{16}$ " - $\frac{3}{8}$ " | 5 $\frac{1}{2}$ " | 2 4 |
| A-2022 | $\frac{5}{8}$ " - $\frac{11}{16}$ " | $\frac{3}{8}$ " | $\frac{1}{2}$ " | $\frac{1}{2}$ " | 6" | 3 8 |

| | |
|----------|---|
| No. A-4 | Set 4 Wrenches as listed above. Wt. 8 ozs. |
| No. A-4L | No. A-4 Set in Leatherette Kit. Wt. 10 ozs. |



No. RB-3L



No. RB-4L



No. RB-5L

ALLOY RATCHET BOX WRENCHES

Covering the most popular sizes used in automotive, tractor, aircraft, refrigeration and industrial maintenance operations these wrenches will prove to be big time savers. They are exceptionally popular in machine shops for use on production fixtures as they reduce set-up time on machines. Can be used for all types of service work and since they are built from alloy steel and fully heat-treated they will stand up better than most similar wrenches on the market. The heads are thinner than most box wrenches which, together with the ratcheting feature, allows access and work in limited quarters. Packed 6 to a carton.

- No. RB-3L Set contains RB-810, RB-1214 and RB-1618 in Leatherette Kit. Wt. $\frac{3}{4}$ lb.
 No. RB-4L Set contains RB-810, RB-1214, RB-1618, RB-2022 in Leatherette Kit. Wt. $1\frac{1}{4}$ lbs.
 No. RB-5L Set contains 5 wrenches listed below in Leatherette Kit. Wt. $2\frac{1}{4}$ lbs.

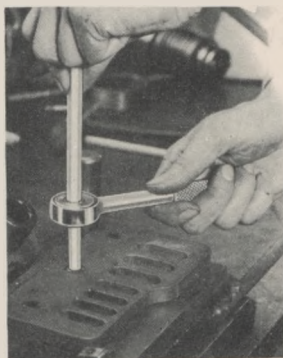
| No. | Size Openings | Head Thickness | Length | Weight per Doz. | |
|---------|-----------------------------------|-----------------|------------------|-----------------|------|
| | | | | Lbs. | Ozs. |
| RB-810 | $\frac{1}{4}$ " - $\frac{3}{8}$ " | $\frac{3}{8}$ " | $4\frac{1}{4}$ " | 1 | 8 |
| RB-1214 | $\frac{1}{2}$ " - $\frac{1}{8}$ " | $\frac{3}{8}$ " | $6\frac{1}{2}$ " | 2 | 4 |
| RB-1618 | $\frac{1}{2}$ " - $\frac{3}{8}$ " | $\frac{1}{2}$ " | $8\frac{1}{2}$ " | 4 | 8 |
| RB-2022 | $\frac{3}{4}$ " - $\frac{1}{2}$ " | $\frac{1}{2}$ " | 8" | 7 | 8 |
| RB-2428 | $\frac{3}{4}$ " - $\frac{1}{2}$ " | $\frac{1}{2}$ " | $9\frac{1}{4}$ " | 9 | |



RATCHET BOX WRENCHES SINGLE END

Built especially for use by die makers to speed up tightening and loosening socket head screws in die sets, jigs and fixtures. Used with an Allen wrench these ratchet box wrenches simplify this work and permit greater leverage to be used. Many of these wrenches are already in use in automotive manufacturing plants and have proven to be time and labor savers. They are substantially built to give long service. Handles are drop forged from Chrome Alloy steel, four dogs always in engagement provide plenty of strength and the 36 teeth permit a short throw. Chrome plated finish.

| No. | Size Openings | Length | Weight |
|----------|--------------------------|------------------|---------------------|
| H-161-14 | $\frac{1}{4}$ " - 12 Pt. | 11" | $1\frac{1}{4}$ lbs. |
| H-161-16 | $\frac{1}{4}$ " - 12 Pt. | 11" | $1\frac{1}{4}$ lbs. |
| H-161-18 | $\frac{1}{4}$ " - 12 Pt. | 11" | $1\frac{1}{4}$ lbs. |
| H-161-20 | $\frac{3}{8}$ " - 12 Pt. | 11" | $1\frac{1}{4}$ lbs. |
| H-261-8 | $\frac{1}{4}$ " - 6 Pt. | $6\frac{1}{2}$ " | 10 ozs. |
| H-261-10 | $\frac{1}{4}$ " - 6 Pt. | $6\frac{1}{2}$ " | 10 ozs. |
| H-261-12 | $\frac{3}{8}$ " - 12 Pt. | $6\frac{1}{2}$ " | 10 ozs. |



This illustration shows a typical application . . . tightening hollow head set screws on a set of production dies.

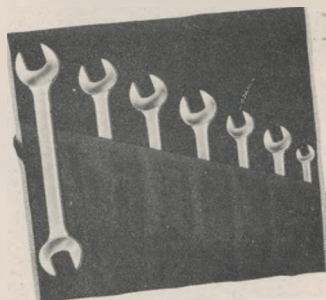


OPEN END WRENCHES

OTC open-end engineers wrenches are designed especially for the automotive, aircraft and industrial maintenance field after engineering research and diligent development work made possible a design that would fit their needs.

The thin heads and pear-shaped jaws provide maximum accessibility and at the same time, the chrome alloy steel and scientific heat-treatment give a resulting strength that is far out of proportion to the size of the wrench. These wrenches are well-balanced with openings that are accurately machined to exact tolerances to assure a perfect fit. You will like the "feel" of an OTC open end wrench.

No. ES-5L



No. ES-7L

| Wrench No. | Size Openings | For S. A. E. Nuts and Cap Screws | Head Thickness | Length | Weight per Doz. Lbs. Ozs. |
|------------|--------------------------------------|-------------------------------------|------------------|--------------------|---------------------------|
| E-1012 | $\frac{5}{16}$ " x $\frac{3}{8}$ " | | $\frac{5}{16}$ " | 4" | 1 |
| E-1214 | $\frac{3}{8}$ " x $\frac{1}{2}$ " | $\frac{1}{4}$ " - $\frac{1}{2}$ " | $\frac{5}{16}$ " | 5" | 1 |
| E-1416 | $\frac{1}{2}$ " x $\frac{5}{8}$ " | $\frac{1}{2}$ " - $\frac{3}{4}$ " | $\frac{5}{16}$ " | 6 $\frac{1}{4}$ " | 2 4 |
| E-1618 | $\frac{1}{2}$ " x $\frac{1}{2}$ " | $\frac{3}{8}$ " - $\frac{1}{2}$ " | $\frac{5}{16}$ " | 6 $\frac{3}{4}$ " | 2 8 |
| E-1619 | $\frac{1}{2}$ " x $1\frac{1}{4}$ " | $\frac{1}{4}$ " - $\frac{1}{2}$ " | $\frac{5}{16}$ " | 6 $\frac{3}{4}$ " | 2 8 |
| E-1820 | $\frac{9}{16}$ " x $\frac{5}{8}$ " | | $\frac{5}{16}$ " | 7 $\frac{1}{4}$ " | 3 6 |
| E-2022 | $\frac{5}{8}$ " x $1\frac{1}{16}$ " | $\frac{1}{2}$ " - $\frac{3}{4}$ " | $\frac{5}{16}$ " | 8 $\frac{1}{4}$ " | 3 10 |
| E-2024 | $\frac{5}{8}$ " x $\frac{3}{4}$ " | $\frac{1}{2}$ " - $\frac{3}{4}$ " | $\frac{5}{16}$ " | 8 $\frac{1}{4}$ " | 3 10 |
| E-2225 | $1\frac{1}{16}$ " x $2\frac{1}{2}$ " | | $\frac{5}{16}$ " | 8 $\frac{1}{4}$ " | 3 12 |
| E-2428 | $\frac{3}{4}$ " x $\frac{7}{8}$ " | $\frac{1}{2}$ " - $\frac{3}{4}$ " | $\frac{5}{16}$ " | 9 $\frac{3}{4}$ " | 5 10 |
| E-2426 | $\frac{3}{4}$ " x $1\frac{1}{16}$ " | $\frac{1}{2}$ " - $\frac{3}{4}$ " | $\frac{5}{16}$ " | 9 $\frac{3}{4}$ " | 5 10 |
| E-3032 | $1\frac{1}{16}$ " x 1" | $\frac{3}{8}$ " - $1\frac{1}{16}$ " | $\frac{5}{16}$ " | 10 $\frac{5}{8}$ " | 7 8 |
| E-3436 | $1\frac{1}{16}$ " x $1\frac{1}{8}$ " | $\frac{3}{8}$ " - $1\frac{1}{8}$ " | $\frac{5}{16}$ " | 12" | 18 |
| E-3440 | $1\frac{1}{16}$ " x $1\frac{3}{4}$ " | $\frac{3}{8}$ " - $1\frac{3}{4}$ " | $\frac{5}{16}$ " | 12" | 18 |
| E-3640 | $1\frac{1}{8}$ " x $1\frac{1}{2}$ " | $\frac{3}{4}$ " - $1\frac{1}{2}$ " | $\frac{5}{16}$ " | 12" | 18 |

No. ES-5 Set contains E-1214, E-1618, E-2022, E-2428, E-3032. Wt. 2 $\frac{1}{2}$ lbs.

No. ES-5L Set is ES-5 Set in Leatherette Kit. Wt. 2 $\frac{1}{4}$ lbs.

No. ES-6 Set contains E-1416, E-1619, E-1820, E-2225, E-2428, E-3032. Wt. 2 $\frac{3}{4}$ lbs.

No. ES-6L Set is No. ES-6 Set in Leatherette Kit. Wt. 2 $\frac{3}{4}$ lbs.

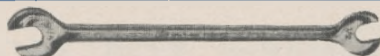
No. ES-7 Set contains E-1214, E-1618, E-1619, E-2024, E-2225, E-2428, E-3032. Wt. 3 lbs.

No. ES-7L Set is No. ES-7 Set in Leatherette Kit. Wt. 3 lbs.

No. ES-8 Set contains E-1012, E-1416, E-1820, E-2022, E-2225, E-2428, E-3032, E-3436. Wt. 4 lbs.

No. ES-8L Set is No. ES-8 Set in Leatherette Kit. Wt. 4 lbs.

IMPROVED TAPPET WRENCHES



Newly designed and streamlined these wrenches are built for looks as well as utility. They are well-balanced with thin, narrow, pear-shaped heads machined to fine accuracy. The openings are set at a 15° angle from the handle and are deep enough to firmly grip the tapet nut with maximum clearance. OTC Tapet Wrenches are drop-forged from high alloy steel, fully heat-treated for strength and beautifully chrome plated with highly polished heads.



No. O-10L

| No. | Sizes | Length | Weight |
|--------|-------------------------------------|-------------------|--------|
| O-1416 | $\frac{1}{16}$ " - $\frac{1}{2}$ " | 9 $\frac{1}{2}$ " | 3 oz. |
| O-1417 | $\frac{1}{16}$ " - $1\frac{1}{4}$ " | 9 $\frac{1}{2}$ " | 3 oz. |
| O-1618 | $\frac{1}{2}$ " - $\frac{3}{16}$ " | 9 $\frac{1}{2}$ " | 3 oz. |
| O-2022 | $\frac{3}{8}$ " - $1\frac{1}{16}$ " | 9 $\frac{1}{2}$ " | 4 oz. |
| O-2428 | $\frac{3}{4}$ " - $\frac{1}{2}$ " | 9 $\frac{1}{2}$ " | 4 oz. |

No. O-7 Set contains 2 each O-1416, O-1618. Wt. 1 lb.

No. O-7L Set is No. O-7 Set in Leatherette Kit. Wt. 1 lb.

No. O-9 Set contains 2 each O-1416, O-1618, O-2022. Wt. 1 $\frac{1}{2}$ lbs.

No. O-9L Set is No. O-9 Set in Leatherette Kit. Wt. 1 $\frac{1}{2}$ lbs.

No. O-10 Set contains 2 each O-1416, O-1618, O-2022, O-2428. Wt. 2 lbs.

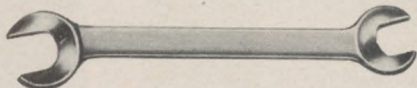
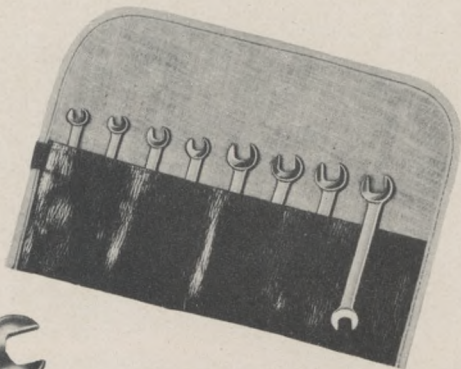
No. O-10L Set is No. O-10 Set in Leatherette Kit. Wt. 2 lbs.



IGNITION WRENCH SETS

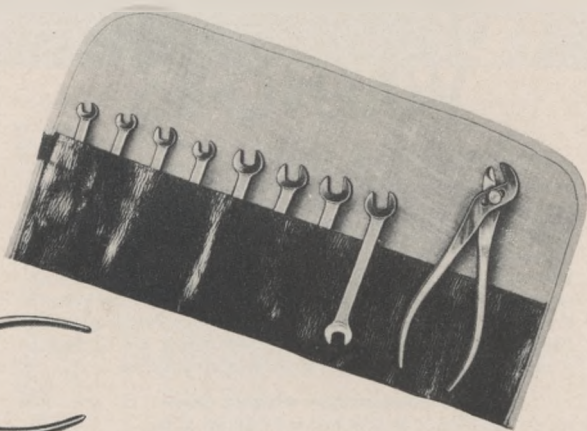
Set No. EW-15L

This set contains eight wrenches and includes two of each of the four sizes listed in the table below. An inexpensive set but one that is essential in every tool kit.



Set No. EW-16L

This set contains eight ignition wrenches, two each of the sizes listed in the table below plus a pair of Ignition Pliers No. 780.



OTC IGNITION WRENCHES

Built of Chrome alloy steel, drop-forged and fully heat-treated these wrenches cannot be compared to wrenches made from stampings. They are lightweight, yet their high tensile strength makes them well suited to the work for which they are designed. Especially handy for work on magnetos, panel instruments, coils, distributors, carburetors and all types of electrical work including radios.

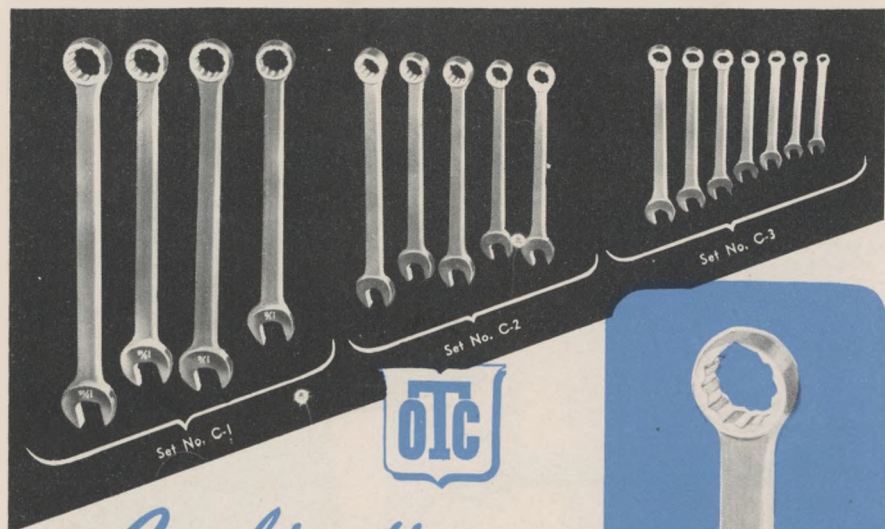
Each wrench has a different opening on each end and the openings in each case are set at a 15° angle with the handle. The use of the Ignition Plier to hold one nut while turning the other make additional variations in head angles unnecessary.

Each wrench is accurately machined and beautifully finished with highly polished heads.

No. EW-15L—Set of 8 wrenches in Kit. Wt. 4 ozs.

No. EW-16L—Set of 8 wrenches, plus No. 780 Plier in Kit. Wt. 6 ozs.

| No. | Size Openings | Head Thickness | Length | Weight per Doz. in Ozs. |
|-------|-------------------------------------|-----------------|-------------------|-------------------------|
| EW-7 | $\frac{1}{8}$ " - $\frac{13}{16}$ " | $\frac{1}{8}$ " | 3" | 6 |
| EW-8 | $\frac{1}{4}$ " - $\frac{15}{16}$ " | $\frac{1}{4}$ " | 3 $\frac{1}{4}$ " | 7 |
| EW-9 | $\frac{3}{8}$ " - $\frac{11}{2}$ " | $\frac{3}{8}$ " | 3 $\frac{1}{2}$ " | 10 |
| EW-10 | $\frac{1}{2}$ " - $\frac{3}{4}$ " | $\frac{1}{2}$ " | 3 $\frac{3}{4}$ " | 12 |



Combination WRENCHES

A complete range of combination open-end and box-end wrenches provides the advantages of both types of wrenches in one unit. The open end is set at an angle of 15° and the box end has a 15° offset to give adequate clearance. Having both ends the same size allows the operator to alternate where the occasion requires it.

These wrenches ranging in size from $\frac{3}{8}$ " to $1\frac{1}{2}$ " can be used on all types of maintenance work from carburetors and electrical units to heavy tractors and machine tools. Each wrench is drop-forged from Chrome Molybdenum steel and fully heat-treated over all to give strength and long life under the most exacting conditions.

COMBINATION WRENCH SETS

No. C-1 Set includes C-36, C-40, C-42 and C-46. Wt. 11 lbs.

No. C-1L Set is No. C-1 Set in Leatherette Kit. Wt. 11 lbs.

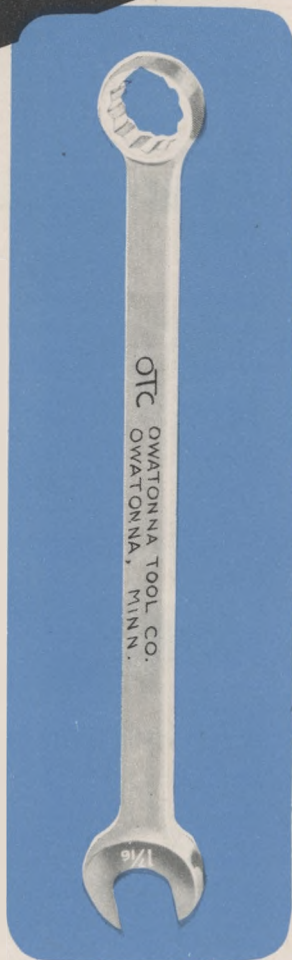
No. C-2 Set includes C-26, C-28, C-30, C-32, C-34. Wt. 6 lbs.

No. C-2L Set is No. C-2 Set in Leatherette Kit. Wt. 6 lbs.

No. C-3 Set includes C-12, C-14, C-16, C-18, C-20, C-22, C-24. Wt. $1\frac{3}{4}$ lbs.

No. C-3L Set is No. C-3 Set in Leatherette Kit. Wt. $1\frac{3}{4}$ lbs.

| No. | Size | Length | Weight | No. | Size | Length | Weight |
|------|------------------|-------------------|--------|------|------------------|--------------------|----------------------|
| C-12 | $\frac{3}{8}$ " | 6 $\frac{1}{2}$ " | 1 oz. | C-28 | $\frac{7}{8}$ " | 10" | 13 oz. |
| C-14 | $\frac{1}{2}$ " | 6 $\frac{1}{2}$ " | 2 oz. | C-30 | $\frac{1}{2}$ " | 11 $\frac{1}{4}$ " | 1 $\frac{1}{4}$ lbs. |
| C-16 | $\frac{5}{8}$ " | 7" | 3 oz. | C-32 | 1" | 12" | 1 $\frac{1}{2}$ lbs. |
| C-18 | $\frac{3}{4}$ " | 7 $\frac{1}{2}$ " | 3 oz. | C-34 | $1\frac{1}{8}$ " | 14" | 1 $\frac{3}{4}$ lbs. |
| C-20 | $\frac{7}{8}$ " | 7 $\frac{3}{4}$ " | 5 oz. | C-36 | $1\frac{1}{4}$ " | 15" | 1 $\frac{3}{4}$ lbs. |
| C-22 | $\frac{1}{2}$ " | 8 $\frac{3}{8}$ " | 6 oz. | C-40 | $1\frac{3}{4}$ " | 17" | 2 $\frac{1}{4}$ lbs. |
| C-24 | $\frac{1}{2}$ " | 9 $\frac{1}{8}$ " | 8 oz. | C-42 | $1\frac{5}{8}$ " | 17" | 2 $\frac{3}{4}$ lbs. |
| C-26 | $1\frac{1}{2}$ " | 10" | 13 oz. | C-46 | $1\frac{3}{4}$ " | 21" | 3 $\frac{3}{4}$ lbs. |



MASTER SERIES HEAVY DUTY BOX WRENCHES

The OTC Master Series Heavy Duty Box Wrenches are the finest tools of this type available. Made in three styles, straight, 15° offset and double offset and ranging in size from 3 1/4" to 3 3/8", they offer a complete range from which to select the tools best suited to your needs.

The 12 point, accurately broached openings eliminate the danger of the wrench slipping, spreading or twisting when extreme pressure is applied.

Made of high grade alloy steel and accurately heat-treated, they are light but sufficiently strong to do the toughest nut turning jobs. In addition to doing the work of clumsy standard stock tools, they take the place of numerous, special hand forged wrenches.

The improved handle stop and positive safety locking feature incorporated in these wrenches, make them the safest possible tools to use. On a hard pull there is absolutely no danger of the handle turning on the stub end of the wrench, or slipping off.

Seamless steel Tubular Handles in only three sizes are needed to fit the 64 different wrench heads.

All wrenches are finished in heavy Chrome plate with highly polished heads.



TUBULAR HANDLES FOR MASTER BOX WRENCHES

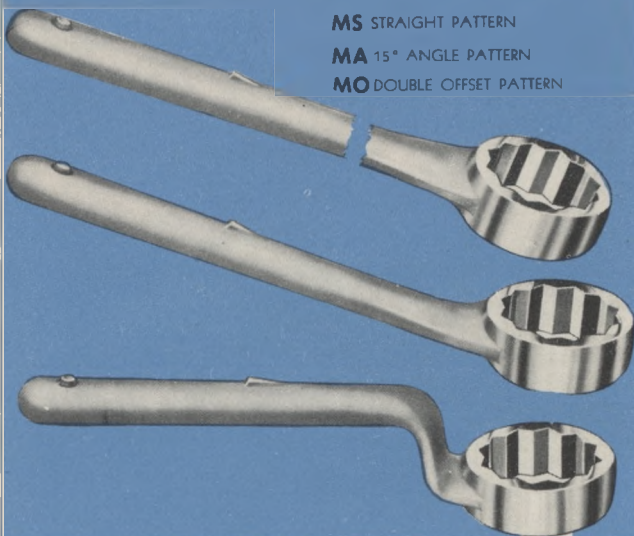
Seamless, steel tubular handles are required to fit all sizes. Built to withstand excessive pressure they provide the necessary leverage for these large size wrenches.

A special locking device allows each handle to be used interchangeably with different size wrenches.

MS STRAIGHT PATTERN

MA 15° ANGLE PATTERN

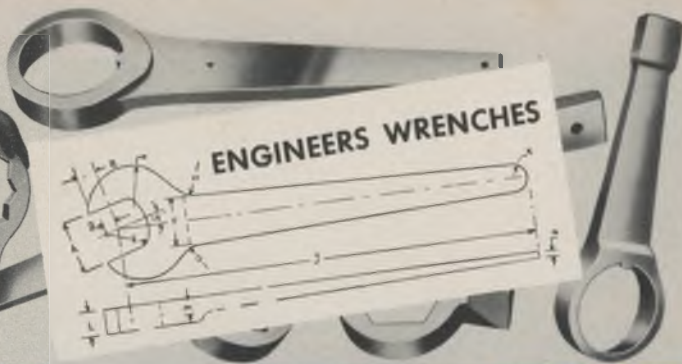
MO DOUBLE OFFSET PATTERN



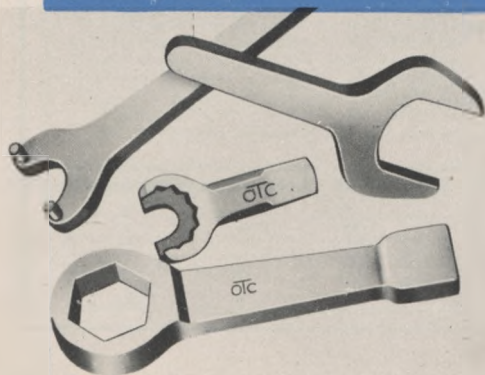
SPECIFICATIONS

| Opening Size | Head Thickness | Shank Size | For Handle No. | Straight | | 15° Offset | | Double Offset | |
|--------------|----------------|------------|----------------|----------|----------------|------------|----------------|---------------|----------------|
| | | | | No. | Weight Lb. Oz. | No. | Weight Lb. Oz. | No. | Weight Lb. Oz. |
| 3 1/4" | 3/8" | 7/8" | M-28 | MS-24 | 1 2 | MA-24 | 1 2 | MO-24 | 1 2 |
| 3 1/2" | 3/8" | 1" | M-28 | MS-28 | 1 2 | MA-28 | 1 2 | MO-28 | 1 2 |
| 3 3/4" | 3/8" | 1 1/8" | M-28 | MS-30 | 1 2 | MA-30 | 1 2 | MO-30 | 1 2 |
| 3 1/2" | 1" | 1 1/8" | M-28 | MS-32 | 1 2 | MA-32 | 1 2 | MO-32 | 1 2 |
| 3 3/4" | 1" | 1 1/8" | M-28 | MS-34 | 1 3 | MA-34 | 1 3 | MO-34 | 1 3 |
| 3 1/2" | 1 1/8" | 1 1/8" | M-28 | MS-36 | 1 4 | MA-36 | 1 4 | MO-36 | 1 4 |
| 3 3/4" | 1 1/8" | 1 1/8" | M-28 | MS-40 | 1 5 | MA-40 | 1 5 | MO-40 | 1 5 |
| 3 1/2" | 1 1/8" | 1 1/8" | M-28 | MS-42 | 1 6 | MA-42 | 1 6 | MO-42 | 1 6 |
| 3 3/4" | 1 1/8" | 1 1/8" | M-28 | MS-44 | 1 8 | MA-44 | 1 8 | MO-44 | 1 8 |
| 3 1/2" | 1 1/8" | 1 1/8" | M-28 | MS-46 | 1 10 | MA-46 | 1 10 | MO-46 | 1 10 |
| 3 3/4" | 1 1/8" | 1 1/8" | M-28 | MS-48 | 1 12 | MA-48 | 1 12 | MO-48 | 1 12 |
| 3 1/2" | 1 1/8" | 1 1/8" | M-32 | MS-52 | 2 5 | MA-52 | 2 5 | MO-52 | 2 5 |
| 3 3/4" | 1 1/8" | 1 1/8" | M-32 | MS-54 | 2 7 | MA-54 | 2 7 | MO-54 | 2 7 |
| 3 1/2" | 1 1/8" | 1 1/8" | M-32 | MS-56 | 2 7 | MA-56 | 2 7 | MO-56 | 2 7 |
| 3 3/4" | 1 1/8" | 1 1/8" | M-32 | MS-58 | 2 10 | MA-58 | 2 10 | MO-58 | 2 10 |
| 3 1/2" | 1 1/8" | 1 1/8" | M-32 | MS-60 | 3 | MA-60 | 3 | MO-60 | 3 |
| 3 3/4" | 1 1/8" | 1 1/8" | M-32 | MS-64 | 3 | MA-64 | 3 | MO-64 | 3 |
| 3 1/2" | 1 1/8" | 1 1/8" | M-32 | MS-70 | 3 | MA-70 | 3 | MO-70 | 3 |
| 3 3/4" | 1 1/8" | 1 1/8" | M-32 | MS-72 | 3 5 | MA-72 | 3 5 | MO-72 | 3 5 |
| 3 1/2" | 1 1/8" | 1 1/8" | M-36 | MS-76 | 4 3 | MA-76 | 3 5 | MO-76 | 3 10 |
| 3 3/4" | 1 1/8" | 1 1/8" | M-36 | MS-82 | 4 12 | ..... | ..... | ..... | ..... |
| 3 1/2" | 1 1/8" | 1 1/8" | M-36 | MS-88 | 5 | ..... | ..... | ..... | ..... |
| 3 3/4" | 1 1/8" | 1 1/8" | M-36 | MS-94 | 5 3 | ..... | ..... | ..... | ..... |
| 3 1/2" | 1 1/8" | 1 1/8" | M-36 | MS-100 | 5 8 | ..... | ..... | ..... | ..... |

| Handle No. | Length | Outside Diameter | Inside Diameter | Weight |
|------------|--------|------------------|-----------------|------------|
| M-28 | 24" | 1 1/8" | 7/8" | 2 3/4 lbs. |
| M-32 | 30" | 1 1/4" | 1" | 4 lbs. |
| M-36 | 36" | 1 1/2" | 1 1/8" | 8 lbs. |

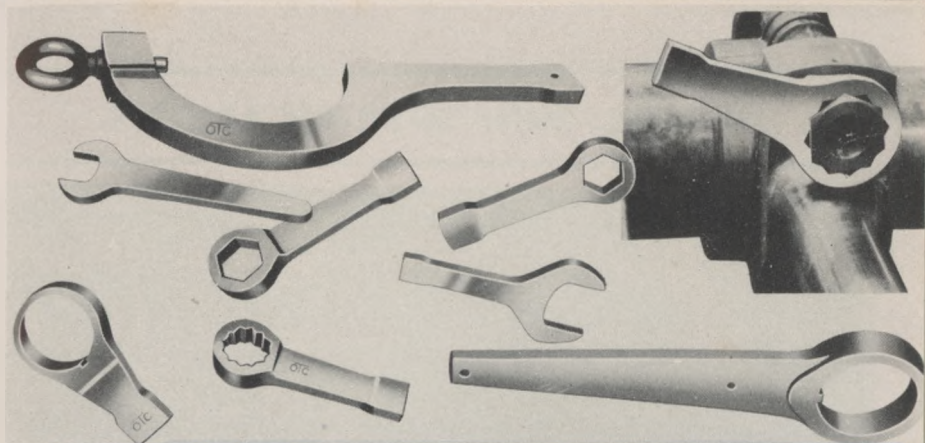


| N ^o | A <small>+0.016 -0.005</small> | B | C | D | E | F | G | H | J | K | L | M | N |
|----------------|---------------------------------------|-------|---------|-------|---------|---------|--------|-------|--------|-------|-------|-----|-----|
| EO 32 | 1 | 11/32 | 13/16 | 3/32 | 3/4 | 15/16 | 11/16 | 1 | 8 | 3/16 | 1/2 | 3/4 | 1/2 |
| 34 | 1 1/16 | 3/8 | 7/8 | 3/16 | 13/16 | 15/16 | 7/8 | 1 1/8 | 8 1/2 | 3/4 | 3/8 | 3/4 | 3/8 |
| 36 | 1 1/8 | 3/8 | 29/32 | 3/16 | 27/32 | 1 | 1 1/8 | 1 1/8 | 9 | 13/32 | 3/8 | 3/4 | 3/8 |
| 40 | 1 1/4 | 7/16 | 1 | 7/32 | 15/16 | 1 1/8 | 1 | 1 1/8 | 10 | 29/32 | 3/4 | 1/2 | 3/8 |
| 42 | 1 1/8 | 7/16 | 1 1/8 | 7/32 | 21/32 | 1 3/16 | 1 1/8 | 1 1/8 | 10 1/2 | 15/32 | 3/4 | 1/2 | 3/8 |
| 46 | 1 3/16 | 1/2 | 1 1/8 | 1/4 | 1 1/16 | 1 1/4 | 1 1/8 | 1 1/8 | 11 1/2 | 7/16 | 7/8 | 3/4 | 1/2 |
| 48 | 1 1/2 | 1/2 | 1 1/2 | 1/4 | 1 1/8 | 1 3/8 | 1 1/4 | 1 1/4 | 12 | 7/16 | 7/8 | 3/4 | 1/2 |
| 52 | 1 3/8 | 9/16 | 1 3/16 | 9/32 | 1 1/32 | 1 3/16 | 1 1/8 | 1 1/8 | 12 1/2 | 19/32 | 7/8 | 3/4 | 1/2 |
| 54 | 1 1/16 | 19/32 | 1 3/8 | 3/16 | 1 1/4 | 1 1/2 | 1 3/8 | 1 3/8 | 13 1/4 | 21/32 | 7/8 | 3/4 | 1/2 |
| 58 | 1 13/16 | 5/8 | 1 13/16 | 3/16 | 1 3/8 | 1 3/8 | 1 3/4 | 1 3/4 | 14 1/2 | 23/32 | 1 | 3/4 | 1/2 |
| 60 | 1 7/8 | 21/32 | 1 17/32 | 11/32 | 1 13/32 | 1 11/16 | 1 3/4 | 1 3/4 | 15 | 3/16 | 1 | 3/4 | 1/2 |
| 64 | 2 | 11/16 | 1 1/8 | 11/32 | 1 1/2 | 1 13/16 | 1 3/4 | 2 | 16 | 19/32 | 1 | 3/4 | 1/2 |
| 66 | 2 1/16 | 23/32 | 1 1/16 | 3/8 | 1 9/16 | 1 7/8 | 1 3/4 | 2 1/4 | 16 3/4 | 9/8 | 1 | 3/4 | 1/2 |
| 70 | 2 3/16 | 3/4 | 1 3/4 | 3/8 | 1 1/8 | 1 15/16 | 1 3/4 | 2 3/4 | 17 1/2 | 21/16 | 1 | 3/4 | 1/2 |
| 72 | 2 1/4 | 25/32 | 1 23/32 | 13/32 | 1 21/32 | 2 | 2 1/16 | 2 1/4 | 17 3/4 | 11/16 | 1 | 3/4 | 1/2 |
| 76 | 2 3/8 | 25/32 | 1 23/32 | 13/32 | 1 23/32 | 2 1/16 | 2 1/16 | 2 3/4 | 18 | 23/32 | 1 1/4 | 1/2 | 3/8 |
| 78 | 2 3/16 | 13/16 | 1 31/32 | 13/32 | 1 13/16 | 2 3/16 | 2 | 2 3/4 | 19 1/2 | 3/4 | 1 1/2 | 1/2 | 3/8 |
| 82 | 2 9/16 | 7/8 | 2 1/16 | 7/16 | 1 11/16 | 2 1/4 | 2 3/16 | 2 3/4 | 20 1/2 | 3/4 | 1 1/2 | 7/8 | 3/8 |
| 84 | 2 5/8 | 29/32 | 2 1/8 | 13/32 | 1 11/32 | 2 5/8 | 2 3/8 | 2 3/4 | 21 | 23/32 | 1 1/2 | 7/8 | 3/8 |

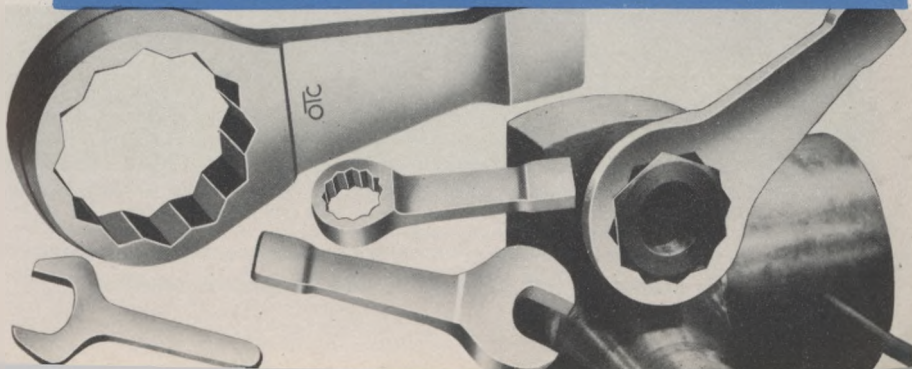


OTC ENGINEERS WRENCHES

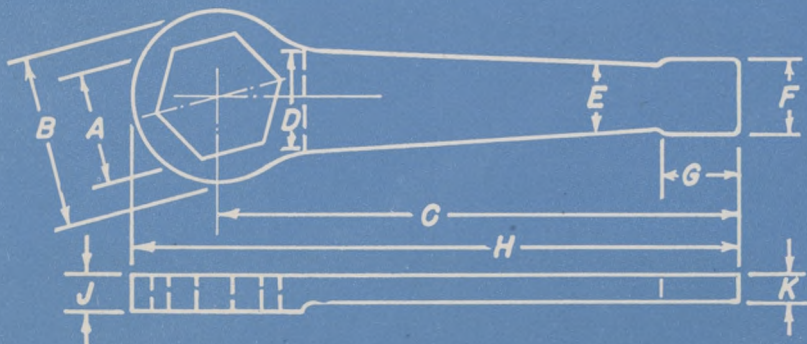
OTC Engineers Wrenches are available in sizes and designs other than those shown in the specifications on these pages. OTC production facilities are such that many variations in size and design are possible. The wrenches illustrated on these two pages show the variety of types which can be built. Special wrench problems are solicited where standard designs do not fit requirements. Special production and maintenance wrenches can be designed and built to meet the requirements of any industry including marine, railroad, mill, mine, manufacturing, etc. Designs and prices will be submitted on application.



| Nº | A $\begin{smallmatrix} +0.03 \\ -0.00 \end{smallmatrix}$ | B | C | D | E | F | G | H | J | K | L | M | N |
|-------|---|---------|---------|--------|---------|---------|---------|---------|--------|--------|-------|-------|-------|
| EO 88 | 2 3/4 | 1 5/16 | 2 1/32 | 1 5/32 | 2 1/16 | 2 1/16 | 2 1/32 | 2 3/4 | 22 | 2 1/32 | 1 3/8 | 7/8 | 5/8 |
| 90 | 2 15/16 | 2 1/32 | 2 9/32 | 1/2 | 2 1/32 | 2 1/2 | 2 9/32 | 2 15/16 | 22 1/2 | 2 1/32 | 1 3/8 | 7/8 | 5/8 |
| 94 | 2 15/16 | 1 | 2 1/8 | 1/2 | 2 3/16 | 2 5/8 | 2 3/8 | 2 15/16 | 23 1/2 | 7/8 | 1 3/8 | 7/8 | 5/8 |
| 96 | 3 | 1 | 2 1/8 | 1/2 | 2 1/4 | 2 5/8 | 2 1/8 | 3 | 24 | 23/32 | 1 3/8 | 7/8 | 5/8 |
| 100 | 3 1/8 | 1 1/16 | 2 11/32 | 11/32 | 2 11/32 | 2 3/4 | 2 11/32 | 3 1/8 | 24 1/8 | 1 1/16 | 1 3/8 | 7/8 | 5/8 |
| 108 | 3 3/8 | 1 1/32 | 2 3/4 | 1 5/32 | 2 11/32 | 2 11/16 | 2 3/4 | 3 3/8 | 27 | 1 | 1 3/8 | 1 | 5/4 |
| 112 | 3 1/2 | 1 1/32 | 2 7/32 | 1 9/16 | 2 1/8 | 3 1/4 | 2 21/32 | 3 1/2 | 28 | 1 1/16 | 1 3/8 | 1 | 5/4 |
| 120 | 3 3/4 | 1 9/32 | 3 1/32 | 3/2 | 2 3/4 | 3 5/8 | 3 1/32 | 3 3/4 | 30 | 1 1/8 | 1 3/8 | 1 | 5/4 |
| 124 | 3 7/8 | 1 11/32 | 3 1/8 | 11/16 | 2 21/32 | 3 7/8 | 3 1/8 | 3 7/8 | 31 | 1 1/32 | 1 3/8 | 1 | 5/4 |
| 132 | 4 1/8 | 1 13/32 | 3 11/16 | 1 1/16 | 3 1/32 | 3 3/4 | 3 11/32 | 4 1/8 | 33 | 1 1/4 | 1 3/8 | 1 | 5/4 |
| 144 | 4 1/2 | 1 3/4 | 3 21/32 | 2 1/32 | 3 3/8 | 4 1/16 | 3 1/32 | 4 1/2 | 36 | 1 3/8 | 1 3/8 | 1 | 5/4 |
| 148 | 4 5/8 | 1 7/8 | 3 3/4 | 1 1/16 | 3 11/32 | 4 1/8 | 3 3/4 | 4 5/8 | 38 3/4 | 1 3/8 | 2 | 1 1/4 | 1 |
| 160 | 5 | 1 21/32 | 4 1/16 | 7/8 | 3 3/4 | 4 1/2 | 4 1/8 | 5 | 40 | 1 1/2 | 2 | 1 1/4 | 1 |
| 172 | 5 3/8 | 1 21/32 | 4 1/32 | 1 1/16 | 3 21/32 | 4 3/4 | 4 1/32 | 5 3/8 | 43 | 1 5/8 | 2 | 1 1/4 | 1 |
| 184 | 5 3/4 | 1 21/32 | 4 1/32 | 1 | 4 1/32 | 5 1/8 | 4 1/32 | 5 3/4 | 46 | 1 3/4 | 2 | 1 1/4 | 1 |
| 196 | 6 1/8 | 2 1/8 | 4 1/4 | 1 1/16 | 4 1/8 | 5 1/2 | 4 13/16 | 6 1/8 | 49 | 1 7/8 | 2 | 1 1/4 | 1 |
| 208 | 6 1/2 | 2 1/4 | 5 1/4 | 1 1/8 | 4 7/8 | 5 7/8 | 5 1/4 | 6 1/2 | 52 | 2 | 2 1/4 | 1 1/2 | 1 1/4 |
| 220 | 6 3/8 | 2 1/4 | 5 1/8 | 1 1/16 | 5 1/8 | 6 1/8 | 5 1/8 | 6 3/8 | 55 | 2 1/4 | 2 3/4 | 1 1/2 | 1 1/4 |



MODEL SWH SPECIFICATIONS

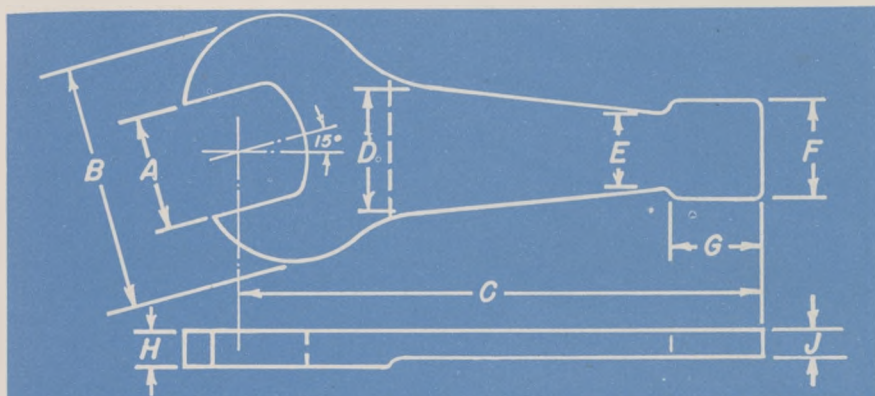


| N ^o | A | B | C | D | E | F | G | H | J | K |
|----------------|-------------------|------------------|------------------|-------------------|-----------------|-------------------|-----------------|--------------------|-----------------|-----------------|
| SWH 64 | 2 | 3 $\frac{5}{8}$ | 9 $\frac{1}{4}$ | 1 $\frac{13}{16}$ | 1 $\frac{3}{8}$ | 2 | 2 $\frac{1}{8}$ | 11 $\frac{1}{16}$ | 1 | 1 |
| " 70 | 2 $\frac{3}{16}$ | 4 $\frac{1}{2}$ | 10 | 2 $\frac{1}{16}$ | 1 $\frac{1}{2}$ | 2 $\frac{3}{16}$ | 2 $\frac{1}{4}$ | 12 $\frac{1}{16}$ | 1 | 1 |
| " 76 | 2 $\frac{3}{8}$ | 4 $\frac{1}{2}$ | 10 $\frac{3}{4}$ | 2 $\frac{1}{4}$ | 1 $\frac{5}{8}$ | 2 $\frac{3}{8}$ | 2 $\frac{3}{8}$ | 13 | 1 | 1 |
| " 82 | 2 $\frac{9}{16}$ | 4 $\frac{5}{8}$ | 11 $\frac{1}{2}$ | 2 $\frac{1}{4}$ | 1 $\frac{5}{8}$ | 2 $\frac{9}{16}$ | 2 $\frac{1}{2}$ | 13 $\frac{5}{16}$ | 1 $\frac{3}{8}$ | 1 $\frac{3}{8}$ |
| " 88 | 2 $\frac{3}{4}$ | 4 $\frac{3}{4}$ | 12 $\frac{1}{4}$ | 2 $\frac{3}{8}$ | 1 $\frac{7}{8}$ | 2 $\frac{3}{4}$ | 2 $\frac{5}{8}$ | 14 $\frac{5}{16}$ | 1 $\frac{3}{8}$ | 1 $\frac{3}{8}$ |
| " 94 | 2 $\frac{13}{16}$ | 5 | 13 | 2 $\frac{1}{2}$ | 2 | 2 $\frac{13}{16}$ | 2 $\frac{3}{4}$ | 15 $\frac{1}{2}$ | 1 $\frac{3}{4}$ | 1 $\frac{3}{4}$ |
| " 100 | 3 $\frac{1}{8}$ | 5 $\frac{1}{8}$ | 14 $\frac{3}{8}$ | 2 $\frac{3}{16}$ | 2 $\frac{1}{8}$ | 3 $\frac{1}{16}$ | 2 $\frac{7}{8}$ | 16 $\frac{15}{16}$ | 1 $\frac{5}{8}$ | 1 $\frac{5}{8}$ |
| " 112 | 3 $\frac{1}{2}$ | 5 $\frac{3}{4}$ | 15 $\frac{1}{2}$ | 2 $\frac{7}{8}$ | 2 $\frac{1}{4}$ | 3 $\frac{1}{4}$ | 3 | 18 $\frac{5}{8}$ | 1 $\frac{5}{8}$ | 1 $\frac{1}{2}$ |
| " 124 | 3 $\frac{7}{8}$ | 6 $\frac{1}{2}$ | 17 $\frac{1}{8}$ | 3 $\frac{1}{4}$ | 2 $\frac{3}{8}$ | 3 $\frac{7}{16}$ | 3 $\frac{1}{8}$ | 20 $\frac{3}{8}$ | 1 $\frac{5}{8}$ | 1 $\frac{1}{4}$ |
| " 136 | 4 $\frac{1}{4}$ | 6 $\frac{3}{4}$ | 18 $\frac{1}{2}$ | 3 $\frac{3}{8}$ | 2 $\frac{1}{2}$ | 3 $\frac{3}{8}$ | 3 $\frac{1}{2}$ | 21 $\frac{7}{8}$ | 1 $\frac{5}{8}$ | 1 $\frac{1}{2}$ |
| " 148 | 4 $\frac{3}{8}$ | 7 $\frac{3}{8}$ | 19 $\frac{7}{8}$ | 3 $\frac{11}{16}$ | 2 $\frac{5}{8}$ | 3 $\frac{13}{16}$ | 3 $\frac{3}{8}$ | 23 $\frac{9}{16}$ | 1 $\frac{5}{8}$ | 1 $\frac{1}{4}$ |
| " 160 | 5 | 8 | 21 $\frac{1}{2}$ | 4 | 2 $\frac{3}{4}$ | 4 | 3 $\frac{1}{2}$ | 25 $\frac{1}{4}$ | 2 | 1 $\frac{1}{2}$ |
| " 172 | 5 $\frac{5}{8}$ | 8 $\frac{3}{4}$ | 22 $\frac{5}{8}$ | 4 $\frac{3}{8}$ | 2 $\frac{7}{8}$ | 4 $\frac{3}{16}$ | 3 $\frac{3}{8}$ | 27 | 2 | 1 $\frac{1}{2}$ |
| " 184 | 5 $\frac{3}{4}$ | 9 $\frac{1}{8}$ | 24 | 4 $\frac{11}{16}$ | 3 | 4 $\frac{3}{8}$ | 3 $\frac{3}{4}$ | 28 $\frac{9}{16}$ | 2 | 1 $\frac{1}{2}$ |
| " 196 | 6 $\frac{1}{8}$ | 9 $\frac{3}{8}$ | 25 $\frac{3}{8}$ | 4 $\frac{1}{8}$ | 3 $\frac{1}{2}$ | 4 $\frac{9}{16}$ | 3 $\frac{7}{8}$ | 30 $\frac{7}{8}$ | 2 | 1 $\frac{1}{2}$ |
| " 208 | 6 $\frac{1}{2}$ | 9 $\frac{3}{4}$ | 26 $\frac{3}{4}$ | 4 $\frac{7}{8}$ | 3 $\frac{3}{4}$ | 4 $\frac{3}{4}$ | 4 | 31 $\frac{5}{8}$ | 2 | 1 $\frac{1}{2}$ |
| " 220 | 6 $\frac{7}{8}$ | 10 $\frac{1}{2}$ | 28 $\frac{1}{8}$ | 5 $\frac{1}{4}$ | 3 $\frac{3}{8}$ | 4 $\frac{13}{16}$ | 4 $\frac{1}{8}$ | 33 $\frac{3}{8}$ | 2 $\frac{3}{4}$ | 2 |
| " 232 | 7 $\frac{1}{4}$ | 11 $\frac{1}{2}$ | 29 $\frac{1}{2}$ | 5 $\frac{1}{8}$ | 3 $\frac{1}{2}$ | 5 $\frac{1}{8}$ | 4 $\frac{1}{4}$ | 35 $\frac{1}{16}$ | 2 $\frac{3}{4}$ | 2 |
| " 244 | 7 $\frac{5}{8}$ | 11 $\frac{3}{4}$ | 30 $\frac{7}{8}$ | 5 $\frac{7}{8}$ | 3 $\frac{5}{8}$ | 5 $\frac{5}{16}$ | 4 $\frac{3}{8}$ | 36 $\frac{3}{4}$ | 2 $\frac{3}{4}$ | 2 |
| " 256 | 8 | 11 $\frac{7}{8}$ | 32 $\frac{1}{4}$ | 5 $\frac{13}{16}$ | 3 $\frac{3}{4}$ | 5 $\frac{1}{2}$ | 4 $\frac{1}{2}$ | 38 $\frac{3}{16}$ | 2 $\frac{3}{4}$ | 2 |
| " 268 | 8 $\frac{3}{8}$ | 12 $\frac{1}{2}$ | 33 $\frac{1}{2}$ | 6 $\frac{1}{4}$ | 3 $\frac{7}{8}$ | 5 $\frac{1}{2}$ | 4 $\frac{3}{4}$ | 39 $\frac{3}{8}$ | 2 $\frac{3}{4}$ | 2 |
| " 280 | 8 $\frac{3}{4}$ | 13 $\frac{1}{8}$ | 34 $\frac{1}{8}$ | 6 $\frac{9}{16}$ | 4 | 5 $\frac{7}{8}$ | 5 | 41 $\frac{7}{16}$ | 2 $\frac{3}{4}$ | 2 |
| " 292 | 9 $\frac{1}{8}$ | 13 $\frac{3}{4}$ | 36 | 6 $\frac{1}{8}$ | 4 $\frac{1}{8}$ | 6 $\frac{1}{8}$ | 5 $\frac{1}{2}$ | 42 $\frac{7}{8}$ | 2 $\frac{3}{4}$ | 2 |

The wrenches illustrated above are not carried in stock and are built only on special order. They are available in hexagon or 12 point (double hex) openings and the specifications are flexible. Any size within or greater than the above range can be furnished in a variety of lengths and thicknesses. Prices on application.

WHEN ORDERING BE SURE TO SPECIFY 12 POINT OR HEXAGON OPENINGS

MODEL TWO SPECIFICATIONS



| N ^o | A | B | C | D | E | F | G | H | J |
|----------------|------------------|------------------|------------------|-------------------|-----------------|-------------------|-----------------|-----------------|-----------------|
| SWO 64 | 2 | 4 $\frac{1}{2}$ | 9 $\frac{1}{2}$ | 1 $\frac{13}{16}$ | 1 $\frac{3}{8}$ | 2 | 2 $\frac{1}{8}$ | 1 | 1 |
| " 70 | 2 $\frac{3}{8}$ | 4 $\frac{1}{2}$ | 10 | 1 $\frac{7}{8}$ | 1 $\frac{1}{2}$ | 2 $\frac{3}{8}$ | 2 $\frac{1}{4}$ | 1 | 1 |
| " 76 | 2 $\frac{5}{8}$ | 4 $\frac{7}{8}$ | 10 $\frac{1}{2}$ | 2 $\frac{1}{4}$ | 1 $\frac{5}{8}$ | 2 $\frac{3}{8}$ | 2 $\frac{3}{8}$ | 1 | 1 |
| " 82 | 2 $\frac{7}{8}$ | 5 $\frac{1}{4}$ | 11 $\frac{1}{2}$ | 2 $\frac{1}{4}$ | 1 $\frac{3}{4}$ | 2 $\frac{9}{16}$ | 2 $\frac{1}{2}$ | 1 $\frac{3}{8}$ | 1 $\frac{3}{8}$ |
| " 88 | 2 $\frac{3}{4}$ | 5 $\frac{1}{2}$ | 12 $\frac{1}{4}$ | 2 $\frac{3}{8}$ | 1 $\frac{7}{8}$ | 2 $\frac{3}{4}$ | 2 $\frac{5}{8}$ | 1 $\frac{3}{8}$ | 1 $\frac{3}{8}$ |
| " 94 | 2 $\frac{5}{16}$ | 6 $\frac{1}{8}$ | 13 | 2 $\frac{5}{8}$ | 2 | 2 $\frac{13}{16}$ | 2 $\frac{3}{8}$ | 1 $\frac{3}{8}$ | 1 $\frac{3}{8}$ |
| " 100 | 3 $\frac{1}{8}$ | 6 $\frac{1}{2}$ | 14 $\frac{3}{8}$ | 2 $\frac{13}{16}$ | 2 $\frac{1}{8}$ | 3 $\frac{1}{16}$ | 2 $\frac{7}{8}$ | 1 $\frac{3}{8}$ | 1 $\frac{3}{8}$ |
| " 112 | 3 $\frac{1}{2}$ | 7 $\frac{1}{4}$ | 15 $\frac{3}{4}$ | 3 $\frac{5}{16}$ | 2 $\frac{1}{4}$ | 3 $\frac{1}{4}$ | 3 | 1 $\frac{3}{8}$ | 1 $\frac{1}{4}$ |
| " 124 | 3 $\frac{5}{8}$ | 8 | 17 $\frac{1}{2}$ | 3 $\frac{1}{2}$ | 2 $\frac{3}{8}$ | 3 $\frac{7}{16}$ | 3 $\frac{1}{8}$ | 1 $\frac{3}{8}$ | 1 $\frac{1}{2}$ |
| " 136 | 4 $\frac{1}{4}$ | 8 $\frac{7}{8}$ | 18 $\frac{1}{2}$ | 3 $\frac{7}{8}$ | 2 $\frac{1}{2}$ | 3 $\frac{5}{8}$ | 3 $\frac{1}{4}$ | 1 $\frac{3}{8}$ | 1 $\frac{1}{4}$ |
| " 148 | 4 $\frac{3}{8}$ | 9 $\frac{3}{4}$ | 19 $\frac{7}{8}$ | 4 $\frac{3}{16}$ | 2 $\frac{5}{8}$ | 3 $\frac{13}{16}$ | 3 $\frac{5}{8}$ | 1 $\frac{5}{8}$ | 1 $\frac{1}{4}$ |
| " 160 | 5 | 10 $\frac{1}{2}$ | 21 $\frac{1}{2}$ | 4 $\frac{1}{2}$ | 2 $\frac{3}{4}$ | 4 | 3 $\frac{1}{2}$ | 2 | 1 $\frac{1}{2}$ |
| " 172 | 5 $\frac{3}{8}$ | 11 $\frac{1}{4}$ | 22 $\frac{5}{8}$ | 4 $\frac{7}{8}$ | 2 $\frac{7}{8}$ | 4 $\frac{3}{16}$ | 3 $\frac{5}{8}$ | 2 | 1 $\frac{1}{2}$ |
| " 184 | 5 $\frac{3}{4}$ | 12 | 24 | 5 $\frac{1}{4}$ | 3 | 4 $\frac{5}{8}$ | 3 $\frac{1}{2}$ | 2 | 1 $\frac{1}{2}$ |
| " 196 | 6 $\frac{1}{2}$ | 12 $\frac{7}{8}$ | 25 $\frac{3}{8}$ | 5 $\frac{5}{8}$ | 3 $\frac{1}{8}$ | 4 $\frac{9}{16}$ | 3 $\frac{7}{8}$ | 2 | 1 $\frac{1}{2}$ |
| " 208 | 6 $\frac{1}{2}$ | 13 $\frac{3}{8}$ | 26 $\frac{3}{4}$ | 6 | 3 $\frac{1}{4}$ | 4 $\frac{3}{4}$ | 4 | 2 | 1 $\frac{1}{2}$ |
| " 220 | 6 $\frac{3}{4}$ | 14 $\frac{3}{8}$ | 28 $\frac{1}{2}$ | 6 $\frac{1}{4}$ | 3 $\frac{3}{8}$ | 4 $\frac{15}{16}$ | 4 $\frac{1}{8}$ | 2 $\frac{3}{8}$ | 2 |
| " 232 | 7 $\frac{1}{4}$ | 15 $\frac{1}{4}$ | 29 $\frac{1}{2}$ | 6 $\frac{5}{8}$ | 3 $\frac{1}{2}$ | 5 $\frac{1}{8}$ | 4 $\frac{1}{4}$ | 2 $\frac{3}{4}$ | 2 |
| " 244 | 7 $\frac{5}{8}$ | 16 | 30 $\frac{7}{8}$ | 7 | 3 $\frac{5}{8}$ | 5 $\frac{5}{16}$ | 4 $\frac{3}{8}$ | 2 $\frac{3}{4}$ | 2 |
| " 256 | 8 | 16 $\frac{3}{4}$ | 32 $\frac{1}{2}$ | 7 $\frac{1}{8}$ | 3 $\frac{3}{4}$ | 5 $\frac{1}{2}$ | 4 $\frac{3}{4}$ | 2 $\frac{5}{8}$ | 2 |
| " 268 | 8 $\frac{3}{8}$ | 17 $\frac{1}{2}$ | 33 $\frac{1}{8}$ | 7 $\frac{3}{4}$ | 3 $\frac{7}{8}$ | 5 $\frac{11}{16}$ | 4 $\frac{3}{4}$ | 2 $\frac{3}{4}$ | 2 |
| " 280 | 8 $\frac{3}{4}$ | 18 $\frac{1}{4}$ | 34 $\frac{7}{8}$ | 8 | 4 | 5 $\frac{7}{8}$ | 5 | 2 $\frac{3}{4}$ | 2 |
| " 292 | 9 $\frac{1}{8}$ | 19 $\frac{1}{4}$ | 36 | 8 $\frac{3}{8}$ | 4 $\frac{1}{8}$ | 6 $\frac{1}{16}$ | 5 $\frac{1}{8}$ | 2 $\frac{3}{4}$ | 2 |

Open-end striking wrenches are available within or greater than the above range of sizes. These wrenches are not carried in stock and are built only on special order. Designs and prices will be submitted on application.

OTC

PLIERS and CUTTERS

DIAGONAL CUTTERS

Three sizes of these Swedish-type lightweight diagonal cutters are available. Made from special alloy steel to provide sharp, long-life cutting edges and extreme toughness in the joint and handle, these cutters are designed for electricians and maintenance men who appreciate good tools. The thin, narrow jaws permit access into tight places and the fitted box joint gives strength and durability where it is needed in this type of tool. Chrome plated. **Packed 6 to a carton.**

- No. 700 Diagonal Cutter, 4". Wt. 3 oz.
- No. 700-A Diagonal Cutter, 5". Wt. 4 oz.
- No. 700-B Diagonal Cutter, 6". Wt. 6 oz.

SIDE CUTTER NO. 702

A heavy duty cutter with extra leverage and extra power for cutting. Built of special alloy steel which holds a sharp cutting edge longer and which will stand up under long use. Like all OTC pliers and cutters they are drop-forged and finished with bright Chrome plate. **Packed 6 to a carton.**

- No. 702—Side Cutter, 7" long. Wt. 8 oz.

SLIP JOINT PLIERS

Three Slip Joint Pliers are available in the most popular sizes. These pliers are drop-forged from special alloy steel and thoroughly heat-treated for strength and toughness. They are carefully fitted and precision machined to provide a high quality plier for a reasonable price. Bright Chrome plated finish. **Packed 6 to a carton.**

- No. 712 Slip Joint Plier, 6". Wt. 7 oz.
- No. 712-A Slip Joint Plier, 8". Wt. 9 oz.
- No. 713 Slip Joint Plier, 10". Wt. 15 oz.

LONG NOSE PLIERS NOS. 707 and 708

Two long nose pliers are available—one with a cutter and the other without a cutter. Both of these pliers are drop-forged from special alloy steel and fully heat-treated for strength and long life. These pliers having long slender jaws are extremely useful in electrical work. Cutting edges are matched and very practical on this type of plier. Bright Chrome plated finish. **Packed 6 to a carton.**

- No. 707 Long Nose Plier with Cutter, 6" long. Wt. 5 oz.
- No. 708 Long Nose Plier without Cutter, 6" long. Wt. 4 oz.

END CUTTING PLIERS NOS. 721 and 722

An extremely practical cutting plier for all types of maintenance work. Wide throat clearance, powerful leverage and thin, sharp cutting jaws at just the right angle make this an all-around tool for automotive and farm implement service men. Drop-forged from special alloy steel and fully heat-treated. Finished in bright Chrome plate. **Packed 6 to a carton.**

- No. 721 End Cutting Pliers, 6". Wt. 9 oz.
- No. 722 End Cutting Pliers, 7". Wt. 12 oz.

BATTERY PLIER NO. 703

Especially designed to grip battery terminal nuts no matter how badly they are corroded. The nose is tapered and is set at 30° to provide easy accessibility to terminal nuts wherever they are located. The long handles fit the hand and give adequate leverage to do the job easily and quickly. Bright Chrome finish. **Packed 6 to a carton.**

- No. 703—Battery Plier, 8". Wt. 7 oz.

PUMP NUT PLIERS NO. 706

The thin jaws with deep milled teeth and the handles built to fit the hand provides plenty of leverage to adjust water pump packing nuts easily and quickly. This plier has five adjustments from 0° to 1½° and the adjusting bolt is made from heat-treated alloy for strength. The entire tool is drop-forged from Chrome Vanadium steel and fully heat-treated for strength and long life. Bright Chrome finish. **Packed 6 to a carton.**

- No. 706—Water Pump Plier, 9½" long. Wt. 9 oz.

NO. 700

NO. 702

NO. 712

NO. 708

NO. 707

NO. 722

NO. 703

NO. 706

THIN NOSE

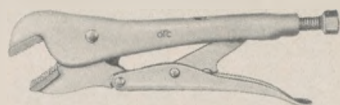
VICE GRIP WRENCHES

The popular Vise-Grip with thin, involute jaws also combines a wire cutter feature. It operates with more ease and efficiency and is an ideal tool for automotive and farm implement maintenance men.

No. 719—Vise-Grip 9", 1½" max. cap. Wt. 10 ozs.

No. 720—Vise-Grip, 10", 1¾" max. cap. Wt. 1¼ lbs.

OTC



VICE-GRIP WRENCHES

A general utility tool for holding bolts, removing battery nuts, turning rods, etc. Extremely handy in any shop doing automotive, farm implement or industrial maintenance work.

No. 717—Vise-Grip 7", max. cap. 1½". Wt. ¾ lb.

No. 718—Vise-Grip 9", max. cap. 1¾". Wt. 1 lb.

WISE GRIP WELDING CLAMP

No. 723

An ideal tool for the body man or welder. Holds material firmly in alignment and leaves both hands free for welding. Easily and quickly adjustable to size and locks in position. Maximum capacity 1½".

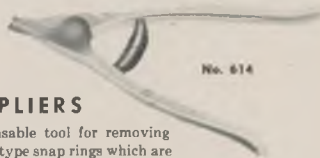
No. 723—Vise-Grip Welding Clamp. Wt. 2 lbs.



SNAP RING PLIERS

An indispensable tool for removing contracting type snap rings which are used to locate bearings, gears and other parts on shafts. See page 38 for description of complete Snap Ring Set.

No. 614—Snap Ring Plier. Wt. 10 ozs.



No. 704

BRAKE SPRING PLIER

An essential tool for removing and installing internal brake springs on all makes of cars and trucks using this type of brake. Also works on the Ford tractor. Drop-forged and fully heat-treated for strength. Chrome plated finish.

No. 704—Brake Spring Plier. Wt. 1 lb.



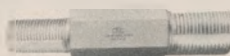
No. 780

IGNITION PLIER

Built especially for ignition work including radio. Adjustable jaws remain parallel regardless of opening and assures a positive grip. Full fashioned handles are designed for easy use. Drop-forged from alloy steel and fully heat-treated for strength and long life.

No. 780—Ignition Plier. Wt. 4 ozs.

SPARK PLUG HOLE CHASER



Built to clean out spark plug holes quickly and thoroughly on a majority of popular makes of cars. It has a 14 millimeter chaser on one end and an 18 millimeter chaser on the other end. In addition to cleaning out carbon deposits this tool will straighten crossed or damaged threads.

No. M-1014—Chaser, 10 and 14 MM. Wt. 6 oz.

No. M-1828—Chaser, 18 M and ¼"-18. Wt. 6 oz.

LOCK RING PLIER

No. 714



Designed to spread and remove the horseshoe lock rings used on all types of hydraulic brakes, differentials and transmissions in many makes of cars and trucks. Drop-forged and fully heat-treated for strength and long life. An essential tool in every service man's tool kit.

No. 714—Lock Ring Plier. Wt. ½ lb.



UNIVERSAL CHAIN WRENCH

The ability to grip round, hexagonal or square material without slipping makes these tools the most popular in the maintenance industry. Equally good for steamfitters, plumbers, well drillers, etc. Two sizes are available with capacities from ¼" to 6" with handles of corresponding size.

No. 887 Chain Wrench, ¾" to 4½". Wt. 1¼ lbs.

No. 887-A Chain (only) for 887, 16" long.

No. 888 Chain Wrench, 5" to 6". Wt. 4½ lbs.

No. 888-A Chain (only) for 888, 22" long.

PYRALIN TIP HAMMERS



Plastic tip hammers are ideal for fitting piston pins, tapping on bearings, gears, valves, etc., without danger of damaging these parts. Tips are replaceable.

No. PT-8 Hammer. Wt. 6 ozs.

No. PT-16 Hammer. Wt. 12 ozs.

No. RT-8 Round Tip for PT-8

No. FT-8 Flat Tip for PT-8

No. RT-16 Round Tip for PT-16

No. FT-16 Flat Tip for PT-16



FEELER GAUGE

10 Blade Feeler Gauge No. 860. Contains 10 popular blades $3\frac{1}{2}$ " long. Sizes .002, .003, .004, .005, .006, .007, .008, .010, .012 and .015. Packed 6 to a carton. No. 860 Gauge.

25 Blade Master Gauge No. 861. A full range of sizes $3\frac{1}{2}$ " long. Sizes .0015, .002, .003, .004, .005, .006, .007, .008, .009, .010, .011, .012, .013, .014, .015, .016, .018, .020, .022, .024, .025, .028, .030, .032 and .035. Packed 6 to a carton. No. 861 Gauge.

Ford Go-No-Go Gauge No. 460. Special Ford Gauge with 7 of 9 blades having Go-No-Go feature. Sizes .035, .025, .022, .016, .014 Ignition and .022, .017, .014, .013 Valves. Packed 6 to a carton. No. 460 Ford Gauge.

Chevrolet Special Gauge No. 524 carries 10 blades including a 3" rule, Float Gauge and .040 Wire Point. Valve and ignition sizes .032, .024, .018, .015, .013, .006 and .008. Packed 6 to a carton. No. 524 Chevrolet Gauge.

Combination Gauge No. 864. Carries 10 feeler blades .002, .003, .004, .005, .006, .007, .008, .010, .013 and .015. Eleven ignition blades: .032, .028, .025, .024, .022, .020, .018, .015, .014, .013 and .012. Packed 6 to a carton. No. 864 Combination Gauge.

Go-No-Go Gauge No. 867. A very popular gauge carrying six blades each of which has two sizes: .004 and .006, .005 and .007, .006 and .008, .007 and .009, .008 and .010, .010 and .012. Packed 6 to a carton. No. 867 Go-No-Go Gauge.

Wire Spark Plug Gauge No. 866. This gauge carries 8 accurate wire gauges for checking Spark Plug points: .040, .035, .032, .030, .028, .027, .025 and .022. Packed 6 to a carton. No. 866 Wire Gauge.

Ignition Gauge No. 862. Very popular for ignition work. Carries 11 blades: .035, .032, .028, .025, .022, .020, .018, .015, .014, .013 and .012. Packed 6 to a carton. No. 862 Ignition Gauge.

Brake Feeler Gauge No. 863. Designed to measure accurately the clearance between the brake drum and shoe. Carries 9 sizes 4" long: .032, .022, .020, .018, .015, .012, .010, .008, .006. Packed 6 to a carton. No. 863 Brake Gauge.

Piston Feeler Gauge No. 869. For measuring piston clearance. Carries 8 sizes $8\frac{3}{4}$ " long: .015, .010, .008, .006, .005, .004, .003, .002. Packed 6 to a carton. No. 869 Piston Feeler Gauge.

Double Stockholder No. 859. Designed to carry two 12" strips of feeler gauge stock. Provides a good supply of stock in any two sizes used most often. Packed 6 to a carton. No. 859 Double Stockholder (only).

Single Stockholder No. 858. Designed to carry one strip of feeler gauge stock any size. Handy for overhead tappet adjusting. Packed 6 to a carton. No. 858 Single Stockholder.

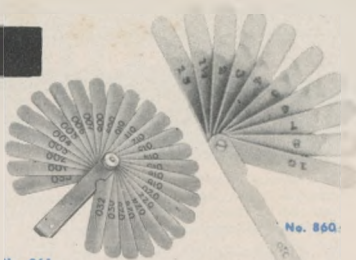
Extra Blades. Two lengths of blades are available to fit either standard feeler gauges or Stockholders. The $3\frac{1}{2}$ " blades are replacements for Nos. 860, 861, 864 and 524. The 12" blades are for use in either the Single or Double Stockholders, Nos. 859 and 858. Packed 6 blades in a cellophane envelope. See tables below for sizes and prices.

$3\frac{1}{2}$ " x $\frac{1}{8}$ " Blades

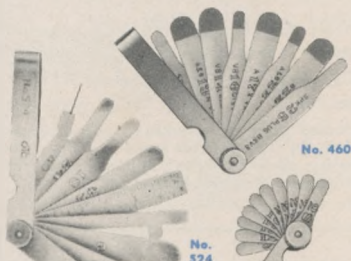
| No. | Size | No. | Size | No. | Size |
|---------|-------|--------|------|--------|------|
| FB-0015 | .0015 | FB-011 | .011 | FB-020 | .020 |
| FB-002 | .002 | FB-012 | .012 | FB-021 | .021 |
| FB-003 | .003 | FB-013 | .013 | FB-022 | .022 |
| FB-004 | .004 | FB-014 | .014 | FB-023 | .023 |
| FB-005 | .005 | FB-015 | .015 | FB-024 | .024 |
| FB-006 | .006 | FB-016 | .016 | FB-025 | .025 |
| FB-007 | .007 | FB-017 | .017 | FB-032 | .032 |
| FB-008 | .008 | FB-018 | .018 | FB-035 | .035 |
| FB-009 | .009 | FB-019 | .019 | FB-040 | .040 |
| FB-010 | .010 | | | | |

12" x $\frac{1}{8}$ " Blades

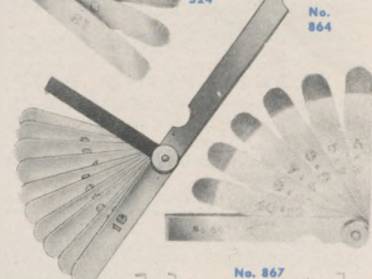
| No. | Size | No. | Size | No. | Size |
|--------|-------|-------|------|-------|------|
| F-0015 | .0015 | F-012 | .012 | F-022 | .022 |
| F-002 | .002 | F-013 | .013 | F-023 | .023 |
| F-003 | .003 | F-014 | .014 | F-024 | .024 |
| F-004 | .004 | F-015 | .015 | F-025 | .025 |
| F-005 | .005 | F-016 | .016 | F-027 | .027 |
| F-006 | .006 | F-017 | .017 | F-028 | .028 |
| F-007 | .007 | F-018 | .018 | F-030 | .030 |
| F-008 | .008 | F-019 | .019 | F-032 | .032 |
| F-009 | .009 | F-020 | .020 | F-035 | .035 |
| F-010 | .010 | F-021 | .021 | F-040 | .040 |
| F-011 | .011 | | | | |



No. 861

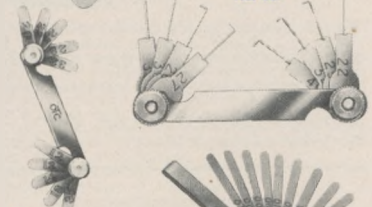


No. 460



No. 524

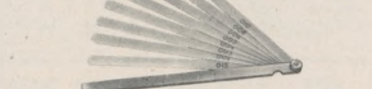
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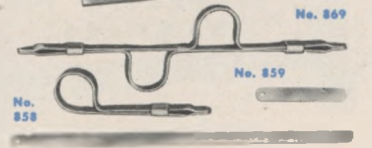
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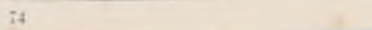
No. 862



No. 863



No. 869



No. 859

No. 858

OTC

SCREW DRIVERS

SQUARE SHANK—OTC square shank screw drivers are forged from Chrome Vanadium steel and heat-treated the full length of the blade. Shock-proof, transparent handles are tough, resist burning and provide an excellent grip. Seventeen sizes are available to provide a very complete assortment from which to choose. See table of specifications.

| No. | Shank Size | Blade Lgth. | Overall Lgth. | Pkg. Unit | No. | Shank Size | Blade Lgth. | Overall Lgth. | Pkg. Unit |
|--------|-----------------|--------------------|--------------------|-----------|-------|-----------------|-------------|--------------------|-----------|
| SS-121 | $\frac{3}{8}$ " | 16 $\frac{1}{2}$ " | 21 $\frac{1}{2}$ " | 6 | SS-83 | $\frac{1}{4}$ " | 6" | 9 $\frac{1}{2}$ " | 6 |
| SS-122 | $\frac{3}{8}$ " | 12 $\frac{1}{2}$ " | 17 $\frac{3}{4}$ " | 6 | SS-84 | $\frac{3}{8}$ " | 4" | 7 $\frac{1}{2}$ " | 6 |
| SS-123 | $\frac{3}{8}$ " | 10 $\frac{3}{4}$ " | 16" | 6 | SS-61 | $\frac{3}{8}$ " | 8" | 11 $\frac{1}{2}$ " | 6 |
| SS-124 | $\frac{3}{8}$ " | 8" | 12 $\frac{1}{2}$ " | 6 | SS-62 | $\frac{3}{8}$ " | 6" | 9 $\frac{1}{2}$ " | 6 |
| SS-101 | $\frac{3}{8}$ " | 8" | 12 $\frac{1}{2}$ " | 6 | SS-63 | $\frac{3}{8}$ " | 4" | 7 $\frac{1}{2}$ " | 6 |
| SS-102 | $\frac{3}{8}$ " | 6" | 10" | 6 | SS-64 | $\frac{3}{8}$ " | 3" | 6" | 6 |
| SS-103 | $\frac{3}{8}$ " | 4" | 8" | 6 | SS-41 | $\frac{1}{2}$ " | 6" | 9" | 6 |
| SS-81 | $\frac{1}{2}$ " | 10 $\frac{1}{4}$ " | 13 $\frac{3}{4}$ " | 6 | SS-42 | $\frac{1}{2}$ " | 4" | 7" | 6 |
| SS-82 | $\frac{1}{2}$ " | 8" | 11 $\frac{3}{4}$ " | 6 | | | | | |

ROUND SHANK—OTC round shank screw drivers are forged from Chrome Vanadium steel and heat-treated the full length of the blade. They are ideal for electrical work since the shock-proof, transparent handles are tough, resist burning and provide an excellent grip. Thirteen sizes including two Stubby Screw Drivers are available in this type to provide a wide range of sizes from which to choose. See table of specifications.

| No. | Shank Dia. | Blade Lgth. | Overall Lgth. | Pkg. Unit | No. | Shank Dia. | Blade Lgth. | Overall Lgth. | Pkg. Unit |
|-------|-----------------|-------------------|--------------------|-----------|--------|-----------------|-------------------|-------------------|-----------|
| RS-81 | $\frac{1}{4}$ " | 8" | 11 $\frac{1}{2}$ " | 6 | RS-41 | $\frac{1}{8}$ " | 6" | 8 $\frac{3}{4}$ " | 6 |
| RS-82 | $\frac{1}{4}$ " | 6" | 9 $\frac{1}{2}$ " | 6 | RS-42 | $\frac{1}{8}$ " | 4" | 7" | 6 |
| RS-83 | $\frac{1}{4}$ " | 4 $\frac{1}{4}$ " | 7 $\frac{3}{4}$ " | 6 | RS-43 | $\frac{1}{8}$ " | 2" | 4 $\frac{1}{4}$ " | 6 |
| RS-61 | $\frac{3}{8}$ " | 8" | 11 $\frac{1}{2}$ " | 6 | RS-31 | $\frac{3}{8}$ " | 1 $\frac{1}{2}$ " | 3" | 6 |
| RS-62 | $\frac{3}{8}$ " | 6" | 9 $\frac{1}{2}$ " | 6 | RS-12S | $\frac{3}{8}$ " | 1 $\frac{1}{2}$ " | 3 $\frac{1}{2}$ " | 6 |
| RS-63 | $\frac{3}{8}$ " | 5" | 8 $\frac{1}{2}$ " | 6 | RS-8S | $\frac{1}{4}$ " | 1 $\frac{1}{4}$ " | 3" | 6 |
| RS-64 | $\frac{3}{8}$ " | 3" | 6 $\frac{1}{2}$ " | 6 | | | | | |

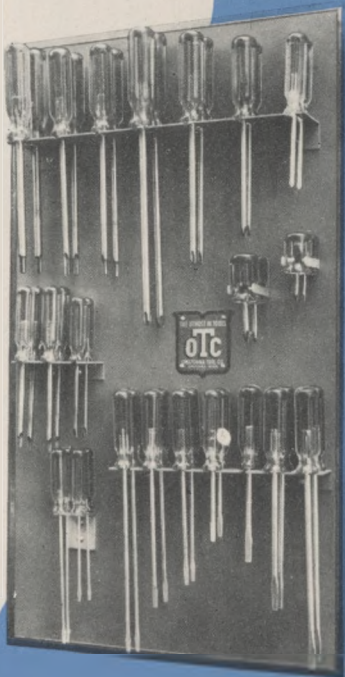
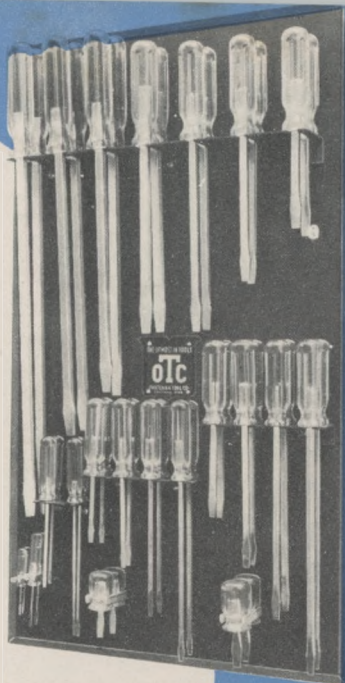
*With Pocket Clips.

PHILLIPS HEAD—A complete range of Phillips Head Screw Drivers are available to fit this popular screw. Phillips screws are being used very extensively in the automotive field and a set of these drivers is essential in every mechanic's kit. Heat-treated shank, shock-proof plastic handles. See table of specifications.

| No. | Bit No. | Shank Dia. | Shank Lgth. | Over-all Lgth. | Pkg. Unit | No. | Bit No. | Shank Dia. | Shank Lgth. | Over-all Lgth. | Pkg. Unit |
|------|---------|-----------------|-------------------|-------------------|-----------|-------|---------|-----------------|-------------------|-------------------|-----------|
| PH-4 | 4 | $\frac{3}{8}$ " | 8 $\frac{3}{8}$ " | 13" | 6 | PH-2S | 2 | $\frac{1}{4}$ " | 1 $\frac{1}{2}$ " | 3 $\frac{1}{2}$ " | 6 |
| PH-3 | 3 | $\frac{3}{8}$ " | 6" | 10" | 6 | PH-1 | 1 | $\frac{3}{8}$ " | 3 $\frac{1}{2}$ " | 6 $\frac{1}{2}$ " | 6 |
| PH-2 | 2 | $\frac{1}{4}$ " | 5" | 8 $\frac{1}{2}$ " | 6 | PH-1S | 1 | $\frac{3}{8}$ " | 1" | 2 $\frac{3}{4}$ " | 6 |

CLUTCH HEAD—Six sizes of Clutch Head Screw Drivers are available to provide a complete range for this type of screw which is found on many popular makes of trucks and tractors. Every mechanic should have a set of these drivers. Shanks are fully heat-treated and handles are shock-proof, transparent plastic. See table of specifications.

| No. | Bit Size | Shank Dia. | Shank Lgth. | Over-all Lgth. | Pkg. Unit | No. | Bit Size | Shank Dia. | Shank Lgth. | Over-all Lgth. | Pkg. Unit |
|-------|-----------------|-----------------|-------------------|--------------------|-----------|------|-----------------|-----------------|-------------------|-------------------|-----------|
| CH-10 | $\frac{3}{8}$ " | $\frac{3}{8}$ " | 6" | 10 $\frac{1}{2}$ " | 6 | CH-6 | $\frac{3}{8}$ " | $\frac{1}{4}$ " | 4" | 7 $\frac{1}{2}$ " | 6 |
| CH-9 | $\frac{3}{8}$ " | $\frac{3}{8}$ " | 6" | 10 $\frac{1}{2}$ " | 6 | CH-5 | $\frac{3}{8}$ " | $\frac{1}{4}$ " | 4" | 7 $\frac{1}{2}$ " | 6 |
| CH-8 | $\frac{3}{8}$ " | $\frac{3}{8}$ " | 6 $\frac{1}{4}$ " | 10 $\frac{1}{4}$ " | 6 | CH-4 | $\frac{3}{8}$ " | $\frac{3}{8}$ " | 3 $\frac{1}{4}$ " | 6 $\frac{1}{4}$ " | 6 |



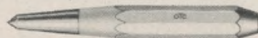


CENTER PUNCHES

Special alloy center punches of high quality are available in six popular sizes. These punches are fully heat-treated for long life and beautifully chrome plated.

No. CP-25—Set of 6 Punches. Wt. 1½ lbs.
No. CP-25L—Set is No. CP-25 in Plastic Kit. Wt. 1½ lbs.

| No. | Stock | Length | Weight |
|-------|-------|--------|--------|
| CP-8 | ¼" | 3" | 1 oz. |
| CP-10 | ⅜" | 3½" | 1 oz. |
| CP-12 | ½" | 4" | 2 oz. |
| CP-16 | ⅝" | 4½" | 4 oz. |
| CP-20 | ¾" | 5" | 6 oz. |
| CP-24 | ¾" | 5½" | 9 oz. |

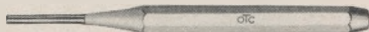


SLIM TAPER PUNCHES

Built of a special alloy steel to resist chipping, bending and mushrooming these punches are the finest on the market. They are fully heat-treated and beautifully finished. No tool set is complete without a set of these fine tools.

No. TP-25—Set of 6 Punches, Wt. 2¼ lbs.
No. TP-25L—Set is No. TP-25 in Plastic Kit. Wt. 2¼ lbs.

| No. | Stock | Bit | Length | Weight |
|-------|-------|-----|--------|--------|
| TP-8 | ¼" | ¼" | 5" | 1 oz. |
| TP-10 | ⅜" | ⅜" | 6" | 2 oz. |
| TP-12 | ½" | ½" | 7" | 3 oz. |
| TP-16 | ⅝" | ⅝" | 8" | 5 oz. |
| TP-20 | ¾" | ¾" | 9" | 10 oz. |
| TP-24 | ¾" | ¾" | 10" | 15 oz. |



STARTER PUNCHES

A good starter punch should be used to loosen stuck pins before driving them out with a pin punch. Hand-forged from special alloy steel, fully heat-treated and finely finished.

No. SP-25—Set of 3 Punches. Wt. 1 lb.
No. SP-25L—Set is No. SP-25 in Plastic Kit. Wt. 1 lb.

| No. | Stock | Bit | Length | Weight |
|-------|-------|-----|--------|--------|
| SP-6 | ½" | ⅜" | 6½" | 4 oz. |
| SP-8 | ½" | ½" | 6½" | 5 oz. |
| SP-10 | ½" | ¾" | 6½" | 5 oz. |



PIN PUNCHES

Long and straight, OTC Pin Punches are hand-forged from special alloy steel, fully heat-treated and finely finished. Furnished in three most popular sizes which are necessities in every tool kit.

No. PP-25—Set of 3 Pin Punches. Wt. ¾ lb.
No. PP-25L—Set is No. PP-25 in Plastic Kit. Wt. ¾ lb.

| No. | Stock | Bit | Length | Weight |
|-------|-------|-----|--------|--------|
| PP-6 | ½" | ⅜" | 7" | 4 oz. |
| PP-8 | ½" | ½" | 7" | 4 oz. |
| PP-10 | ½" | ¾" | 7" | 5 oz. |

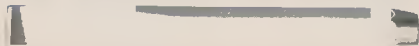
COLD CHISELS

OTC Cold Chisels are built of new, close-grained high alloy steel which is extremely tough and which readily lends itself to a new and more advanced method of heat-treatment. The result is a chisel that stays sharp longer and provides a cutting edge that stands up under severe use. No finer chisels are made anywhere.

No. CC-25—Set of 6 Cold Chisels. Wt. 2¼ lbs.

No. CC-25L—Set is CC-25 in Plastic Kit. Wt. 2¼ lbs.

Packed 12 to a carton.



| No. | Stock | Bit | Length | Weight |
|-------|-------|-----|--------|--------|
| CC-8 | ¼" | ⅜" | 5" | 1 oz. |
| CC-10 | ⅜" | ½" | 5½" | 2 oz. |
| CC-12 | ½" | ¾" | 6" | 3 oz. |
| CC-16 | ⅝" | ⅝" | 6½" | 5 oz. |
| CC-20 | ¾" | ¾" | 7" | 9 oz. |
| CC-24 | ¾" | ¾" | 8" | 14 oz. |

SPECIAL CHISELS



OTC Special Chisels are furnished in Diamond Point, Cape and Round Nose. The narrow-bit cape chisels are available in two sizes for cutting in close places. The Diamond Point is designed to cut V-grooves and the Round Nose is excellent for cutting or cleaning oil grooves. All OTC special chisels are built of high alloy steel and thoroughly heat-treated for long service.

| No. | Stock | Bit | Length | Weight |
|-------------------------|-------|-----|--------|--------|
| Cape No. XC-10 | ⅜" | ¼" | 5" | 2 oz. |
| Cape No. XC-16 | ½" | ⅜" | 6½" | 5 oz. |
| Diamond Point No. DP-16 | ½" | ¼" | 6½" | 5 oz. |
| Round Nose No. RN-16 | ½" | ⅝" | 6½" | 5 oz. |



METAL CUTTING PUNCH

No. 1110

A specially designed tool for cutting tail pipes, mufflers and body parts. Cuts sheet metal without ripping and tearing and leaves no rough edges. An exceptionally good tool in every automotive shop and particularly for the body man. Built of octagon alloy steel, fully heat-treated and beautifully finished.

No. 1110—Metal Cutting Punch. Wt. 8 ozs.

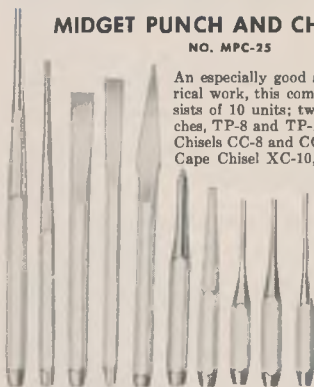
OTC

MIDGET PUNCH AND CHISEL SET

NO. MPC-25

An especially good set for electrical work, this compact set consists of 10 units; two taper punches, TP-8 and TP-10, two Cold Chisels CC-8 and CC-10, one $\frac{3}{8}$ " Cape Chisel XC-10, one Center

Punch CP-10, one Starter Punch MP-5 and three magneto Pin Punches MP-2, MP-3 and MP-4.



No. MPC-25—Midget Set. Wt. $\frac{3}{4}$ lb.

No. MPC-25L—Set No. MPC-25 in Plastic Kit. Wt. $\frac{3}{4}$ lb.

COMBINED PUNCH AND CHISEL SET

NO. PC-25

This set includes a complete range of taper punches and cold chisels in the most popular sizes. They are the sizes used every day by maintenance men in every field. No duplications. Consists of Chisel Set CC-25 and Taper Punch TP-25 listed on the opposite page.

No. PC-25—Combined Punch & Chisel Set. Wt. $4\frac{1}{2}$ lbs.

No. PC-25L—Set No. PC-25 in Plastic Kit. Wt. $4\frac{1}{2}$ lbs.

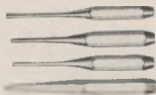


OTC MAGNETO PIN PUNCHES

Built for use on generators, magnetos and other electrical work where small pins must be removed.

MP-26—Set of four Punches. Wt. 3 ozs.

| No. | Bit | Lgth. | Wt. |
|------|------------------|-------|-------|
| MP-2 | $\frac{1}{16}$ " | 3" | 1 oz. |
| MP-3 | $\frac{3}{16}$ " | 3" | 1 oz. |
| MP-4 | $\frac{1}{8}$ " | 3" | 1 oz. |
| MP-5 | $\frac{3}{8}$ " | 3" | 1 oz. |



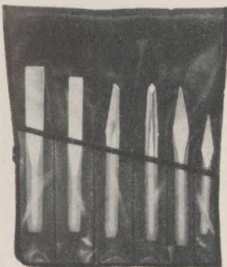
SPECIAL CHISEL SET

No. CC-30

A combination of special chisels that will appeal to the expert service man. This set contains two Mechanics Special Chisels FC-16, $\frac{3}{8}$ " bit and FC-20, $\frac{1}{2}$ " bit and four special chisels XC-10, XC-16, RN-16 and DP-16 shown on the opposite page. Each item is built of special alloy steel, fully heat-treated and finely finished.

No. CC-30—Special Chisel Set. Wt. 2 lbs.

No. CC-30L—Set No. CC-30 in Plastic Kit. Wt. 2 lbs.



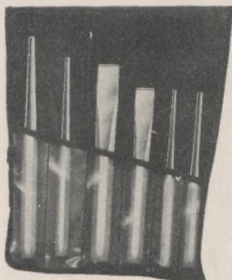
UTILITY PUNCH AND CHISEL SET

No. PC-31

A combination of punches and chisels that contains the most popular sizes in a small compact set. This set includes two Cold Chisels CC-24, CC-20, two Taper Punches TP-16, TP-20 and two Pin Punches PP-6 and PP-8 all listed on the opposite page.

No. PC-31—Utility Punch and Chisel Set. Wt. 3 lbs.

No. PC-31L—Set No. PC-31 in Plastic Kit. Wt. 3 lbs.



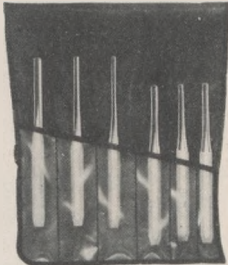
PIN AND STARTER PUNCH SET

No. PP-32

A combination of Pin and Starter Punches all in one set. Contains three Pin Punches PP-6, PP-8 and PP-10 and three Starter Punches SP-6, SP-8 and SP-10 as shown and listed on the opposite page. Each item is built of special alloy steel, fully heat-treated and finely finished.

No. PP-32—Pin and Starter Punch Set. Wt. $1\frac{3}{4}$ lbs.

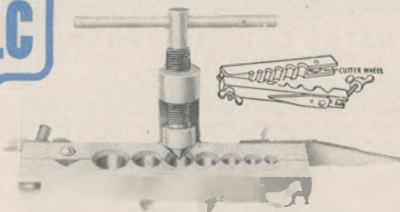
No. PP-32L—Set No. PP-32 in Plastic Kit. Wt. $1\frac{3}{4}$ lbs.



TUBE FLARING AND CUTTING TOOL NUMBER 835

Seven flaring dies are provided on this tool to permit flaring all popular sizes of tubing used on automobiles, aircraft, refrigeration, etc. Gives just the right taper and assures a perfect tight fitting joint and does this job without clamping the tool in a vise or using other means for holding it.

It will handle $\frac{1}{8}$ ", $\frac{3}{16}$ ", $\frac{1}{4}$ ", $\frac{5}{16}$ ", $\frac{3}{8}$ ", $\frac{1}{2}$ " and $\frac{5}{8}$ " tubing without flattening or distortion. The tool has a built-in cutter that eliminates the need for a special tool, and includes a reamer which folds back against the tool when not in use.



No. 835—Tube Flaring Tool and Cutter complete. Wt. 2 lbs.
No. 835-A—Clamp, Screw and Bar (only).

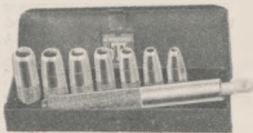
HOLLOW PUNCH

SET No. HP-7

Seven sizes of hollow punches

$\frac{3}{16}$ ", $\frac{1}{4}$ ", $\frac{5}{16}$ ", $\frac{3}{8}$ ", $\frac{1}{2}$ ", $\frac{5}{8}$ " and $\frac{3}{4}$ " are the most popular for cutting holes in gaskets, rubber hose, washers, etc. One driving mandrel fits all sizes. When cutting holes in gaskets, etc. use a wood block as a base. Do not use for cutting holes in metal. For prices on individual pieces see price list HP-8 to HP-20. Packed one set per carton.

No. HP-7—Hollow Punch Set in Metal Case. Wt. $1\frac{3}{4}$ lbs.



SCREW STARTERS

Very practical for use in automotive, aircraft, radio and refrigeration work. Also exceptionally good when repairing typewriters, adding machines and other office equipment. These screw starters maintain a positive grip, making it almost impossible to drop a screw. Well made and will last indefinitely if properly used. To confine their use to starting screws these tools are not guaranteed. Furnished in 3 popular lengths.

No. 727—Screw Starter $2\frac{1}{2}$ " long. Wt. $\frac{1}{2}$ oz.
No. 728—Screw Starter $5\frac{1}{2}$ " long. Wt. 1 oz.
No. 729—Screw Starter $9\frac{1}{2}$ " long. Wt. $1\frac{1}{2}$ ozs.



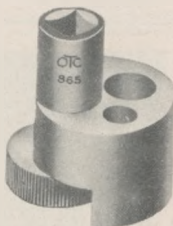
STUD PULLER

No. 865

Capacity $\frac{1}{4}$ " to $\frac{3}{4}$ "

This tool has a $\frac{1}{2}$ " square female connection for use with any $\frac{1}{2}$ " drive socket handle and has a wider range or capacity than most stud pullers. The knurled wheel has a snap-on feature which permits its easy removal and replacement when it wears out. All parts built of chrome alloy steel and fully heat-treated. Because of the nature of the work this tool must perform the knurled wheel is not guaranteed and can be purchased separately. Packed 6 to a carton.

No. 865—Stud Puller. Wt. 1 lb.
No. 865-A—Knurled Wheel (only). Wt. 2 ozs.
No. 865-B—New Style Stud Puller. Wt. 1 lb.
No. 865-B3—Knurled Wheel (only) for 865-B.



PRY BARS

One of the most popular Pry Bars ever made. It combines the advantages of a rolling head pry with those of a lining-up drift. Good for lifting stuck valves, body joints, cylinder heads, bushings, etc. Built of alloy steel.

No. PB-43—Pry Bar $\frac{5}{16}$ " rd., 15" long. Wt. 1 lb.
No. PB-45—Pry Bar $\frac{3}{4}$ " rd., 18" long. Wt. $2\frac{1}{4}$ lbs.



JIMMY BARS

Built of alloy steel and fully heat-treated overall these Jimmy Bars are essential tools in every service shop. Supplied in three popular sizes.

No. PB-18—Jimmy Bar, $\frac{3}{8}$ " rd., 18" long. Wt. 1 lb.
No. PB-24—Jimmy Bar, $\frac{1}{2}$ " rd., 24" long. Wt. 2 lbs.
No. PB-30—Jimmy Bar, $\frac{3}{4}$ " rd., 30" long. Wt. $3\frac{1}{2}$ lbs.

MAGNETIC PICKUP TOOLS



A permanent magnet in the end of these tools make them ideal for all types of service work. They act as retrievers of lost parts. The large size has a telescoping feature that permits it to be extended from 16" to 27". The small size does not extend and is 9" overall.

No. 833—Magnetic Pick-up Tool. Wt. 2 oz.
No. 834—Magnetic Pick-up Tool. Wt. 8 oz.
No. 833-A—Magnetic End Section (only).
No. 834-A—Magnetic End Section (only).



OTC RING COMPRESSOR

No. 868

Built of Swedish Blue Spring steel with a compression tape also made of tough Swedish steel and tempered to withstand excessive tension, this ring compressor does an excellent job. The short L handle

provides the power and is removable. The band is flared on the lower edge to prevent the tool from entering the cylinder when the piston is pushed down in the block. Furnished in two sizes. The small size for cars and the larger size for trucks and tractors.

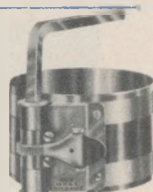
No. 868—Compressor, 2½" to 5". Wt. 7 oz.

No. 868-T—Compressor, 3½" to 7". Wt. 8 oz.



RATCHET RING COMPRESSOR

No. 849



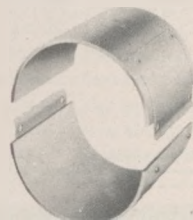
A new type ratchet ring compressor that holds the tension on the rings at the desired point. Pressure is applied by turning the handle and easily and quickly relieved by releasing the ratchet pawl. An automatic friction brake is controlled by two screws on either side of the ratchet pawl and can be adjusted as desired. The latest thing in ring compressors and a decided improvement over other types. Furnished in two sizes.

No. 849—Compressor, 2½" to 5". Wt. 9 oz.

No. 849-T—Compressor, 3½" to 7". Wt. 10 oz.

No. 849-1 Tape (only) for 849.

No. 849-T Tape (only) for 849-T.



DIESEL RING COMPRESSOR

No. HC-686

This compressor has been designed especially for use on International Harvester Industrial tractor "14", "14A", "18" and "18A" Diesel engines. This tool is approved by

IHC and is recommended to all International industrial dealers and users. It is used on the factory assembly line and provides the best method for compressing these rings. Operation: Place the connecting rod with piston in a vise with brass jaws. Assemble the ring compressor over the rings and press the two halves of the tool together until the clips snap in place.

No. HC-686—Ring Compressor. Wt. 3 lbs.

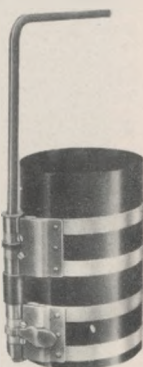
TRUCK RING COMPRESSOR

No. 850-T

Designed especially to work on truck pistons and to handle all rings at once including the ring in the piston skirt. It eliminates the need for using two compressors and reduces the danger of breaking rings in installation. This tool is 6½" long overall and has a capacity from 3½" to 7". Four compression bands are ratchet controlled and tension can be held constant or quickly released. Recommended by IHC for Continental engine No. 6586.

No. 850-T—Truck Ring Compressor. Wt. 1½ lbs.

No. 850T-1—Tape (only) for 850-T.



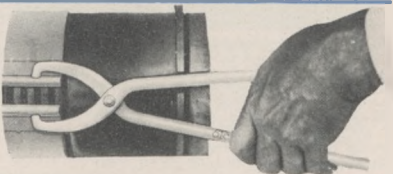
No. 846

RING GROOVE CLEANER

A universal tool that will work on pistons ranging in size from the smallest up to 6" in diameter. Scraper blades operate at a uniform spring tension and the angle of the cutter provides a non-gouging, non-chattering action that permits a smooth, clean finish. It is easy to operate and is fast operating because it is easily adjustable to any size piston up to six inches. An ideal tool for every mechanic who works on cars, trucks or tractors. The cutter carries four sizes: ¾", 1", 1½" and 2" covering most of the sizes used on cars and trucks.

No. 846—Ring Groove Cleaner. Wt. 8 oz.

No. 846-A—Cutter (only)



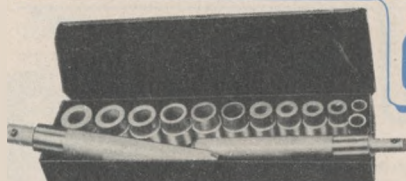
IMPROVED RING COMPRESSOR

No. JD-869

This tool consists of six flexible bands and one pair of compressor tongs with a capacity from 3¼" to 6¼". Especially recommended for use on tractor pistons and approved by John Deere. Includes bands No. JD-869-C, JD-869-D, JD-869-E, JD-869-F, JD-869-G and JD-869-H.

No. JD-869—Ring Compressor with 6 Bands. Wt. 3 lbs.

No. JD-869-B—Tongs (only).



OTC BUSHING DRIVER SET

No. 818

A complete range of driving collars with two handles to fit, built especially to remove and replace bushings on tie rods, spindles, water pumps, pistons, connecting rods, generators, steering gears, distributors, transmissions, spring bushings, etc. For use on automobiles, trucks, electric motors and other equipment using bushings of this type.

Metal box No. 890 is 10½" x 2¼" x 1½".

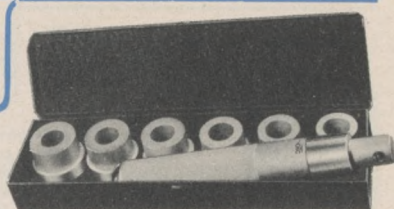
No. 813—Handle, ¾" drive, fits 800 to 804, incl. Wt. ½ lb.

No. 814—Handle, ⅝" drive, fits 806 to 811 incl. Wt. 1 lb.

No. 818—Set, 13 sizes, 2 handles in case. Wt. 3¾ lbs.

| No. | Bushing I. D. | Bushing O. D. | Wt. Oz. |
|-------|---------------|---------------|---------|
| 800 | ½" | ⅝" | 2 |
| 801 | ⅝" | 1¼" | 2 |
| 802 | ⅝" | ¾" | 3 |
| 803 | 1½" | 1¾" | 3 |
| 803-C | 1½" | 1¾" | 3 |
| 804 | ¾" | ¾" | 3 |
| 806 | 1½" | 1¾" | 3 |
| 807 | ¾" | 1" | 3½ |
| 807-A | ¾" | 1½" | 4 |
| 808 | 1½" | 1¾" | 4 |
| 809 | 1" | 1½" | 4½ |
| 810 | 1½" | 1¾" | 5 |
| 811 | 1½" | 1¾" | 5 |

OTC



HEAVY DUTY BUSHING SET

No. T-818

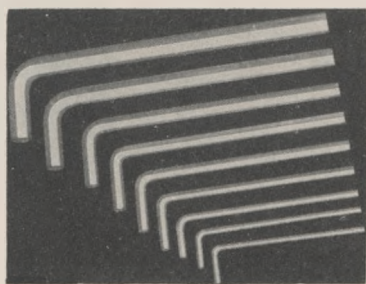
The No. T-818 Bushing Driver Set is designed to install and remove bushings without damage and is built particularly for use on trucks, tractors and other heavy equipment.

It includes six sizes of collars with one driving handle to take care of the most popular sizes of bushings found on heavy equipment. Furnished in a substantial metal box No. 890 which is 10½" x 2¼" x 1½".

No. 815—Driving Handle, 1½" to fit six sizes. Wt. 2 lbs.

No. T-818—Set, 1st 6 sizes with handle in case. Wt. 5 lbs.

| No. | Bushing I. D. | Bushing O. D. | Wt. Oz. |
|--------|---------------|---------------|---------|
| T-806 | 1½" | 1¾" | 4 |
| T-807 | 1¼" | 1½" | 5 |
| T-808 | 1½" | 1¾" | 5 |
| T-809 | 1½" | 1¾" | 6 |
| T-810 | 1½" | 1¾" | 7 |
| T-811 | 1½" | 1¾" | 8 |
| T-811A | 1.603" | 1¾" | 8 |



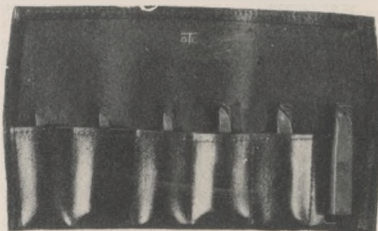
SET SCREW WRENCHES

Indispensable in every maintenance shop since the use of hollow head cap screws and set screws is becoming more extensive every day. Used on engines, motors and all kinds of equipment. This inexpensive set should be in every mechanic's kit.

No. W-14—Set of 10 wrenches. Wt. 1 lb.

No. W-14L—Set No. W-14 in kit, wt. 1 lb.

| No. | Size | Fits Set Screws | Fits HH Cap Screws |
|------|-------|-----------------|--------------------|
| W-1 | 1/16" | 6 | |
| W-2 | 3/16" | 8 | |
| W-3 | 1/4" | 10 & 12 | |
| W-4 | 5/16" | 14 | 8 |
| W-5 | 3/8" | 16 | 10 |
| W-6 | 7/16" | 18 | 12 |
| W-7 | 1/2" | 20 | 14 |
| W-8 | 9/16" | 22 | 16 |
| W-10 | 5/8" | 24 | 18 & 16" |
| W-12 | 3/4" | 26 | 16" |



SCREW EXTRACTORS

OTC Screw Extractors (Easy-Outs) are made of special alloy steel and fully heat-treated for strength and toughness. They accomplish one of the toughest jobs in maintenance work. To operate successfully, drill a shallow hole in the part to be removed and then start the Screw Extractor. See the table below for the proper size and depth of hole to be drilled for each size extractor.

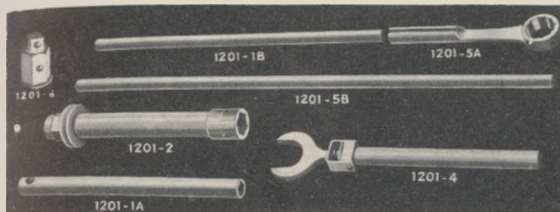
No. 876 Set of 4, Nos. 872, 873, 874, 875. Wt. ½ lb.

No. 876-A Set No. 876 in Leatherette Kit. Wt. ½ lb.

No. 877 Set of 6 sizes. Wt. 14 ozs.

No. 877-L Set No. 877 in Leatherette Kit. Wt. 1 lb.

| No. | For Bolt Dia. | Use Drill Size | Drill Depth | Wt. |
|-----|---------------|----------------|-------------|-------|
| 870 | 3/8" and up | 1/16" | 3/16" | 2 oz. |
| 871 | 1/2" to 5/8" | 3/16" | 3/16" | 2 oz. |
| 872 | 1/2" to 1/2" | 1/8" | 1/4" | 2 oz. |
| 873 | 1/2" to 1/2" | 1/8" | 1/4" | 1 oz. |
| 874 | 5/8" to 1/2" | 3/16" | 3/16" | 1 oz. |
| 875 | 1/4" to 1/2" | 1/16" | 3/16" | 1 oz. |

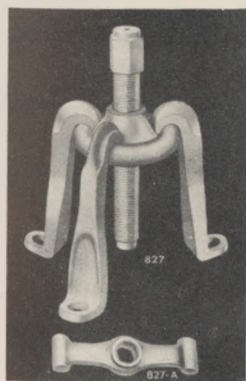


The most complete wrench yet devised for removing Budd Dual Wheels. Both double disc wheel cap nuts and double cap inner nuts can be separately removed by one man quickly and easily. The outer cap nut is removed as shown while the inner cap nut is held tight by means of an inner socket wrench.

An outboard jack support which can be quickly adjusted for height provides adequate support when pressure is applied. An adaptor No. 1201-6 is provided to permit the use of different size sockets to fit any size wheel lugs.

- No. 1201-A Budd Wheel Wrench, as illustrated. Wt. 30 lbs.
- No. 1201-1A Inner Socket, $\frac{1}{2}$ " and $\frac{3}{8}$ " opening. Wt. 6 lbs.
- No. 1201-1B Short Bar, 28" long. Wt. 4 lbs.
- No. 1201-2 Outer Socket, $1\frac{1}{2}$ " Hex. Wt. 5 lbs.
- No. 1201-4 Outboard Jack Support. Wt. $3\frac{3}{4}$ lbs.
- No. 1201-5A $1\frac{3}{4}$ " Box Wrench. Wt. $1\frac{1}{4}$ lbs.
- No. 1201-5B Long Bar, 36". Wt. 6 lbs.
- No. 1201-6 $1\frac{1}{2}$ " Hex, x $\frac{3}{4}$ " Square Adaptor. Wt. 1 lb.

UNIVERSAL WHEEL WRENCH No. 1201-A



UNIVERSAL HUB PULLER

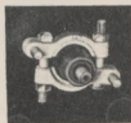
No. 827-B

Distinctive features of design are embodied in the new OTC Universal Hub Puller to make it the outstanding tool of its kind on the market. The sliding arms are readily adjustable and quickly adapted to any hub regardless of the number of wheel studs used and where the hub bolt circle does not exceed $7\frac{1}{2}$ ". It provides a straight pull and eliminates the danger of distorting the wheel lugs. It exerts a direct, powerful force that will remove the most stubborn wheel hub.

No. 827-B—Hub Puller complete with Striking Wrench. Wt. 10 lbs.

No. 827-A—Striking Wrench (only). Wt. 2 lbs.

No.
826-V



FORD HUB PULLING ATTACHMENT

For use with the OTC Universal Hub Puller No. 827-B in pulling Ford hubs from 1936 to 1948. This attachment is clamped behind the flange on the hub and the Hub Puller then hooked up to the attachment.

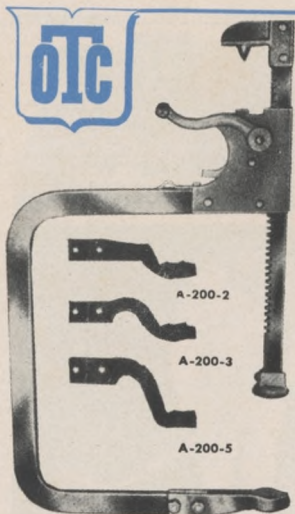
No. 826-V—Ford Hub Pulling Attachment. Wt. $2\frac{1}{2}$ lbs.

TIRE IRON SET No. 1133

Lifetime tire irons built from alloy steel and fully heat-treated. Especially designed for drop center rims they embody curves, offsets and lips to give proper leverage and to make tire work easier and more safe.

- No. 1130—Single-end Tire Iron. Wt. 2 lbs.
- No. 1132—Double-end Tire Iron. Wt. $2\frac{1}{2}$ lbs.
- No. 1133—Set of 2 above Irons. Wt. $4\frac{1}{2}$ lbs.





LITTLE WONDER VALVE LIFTER

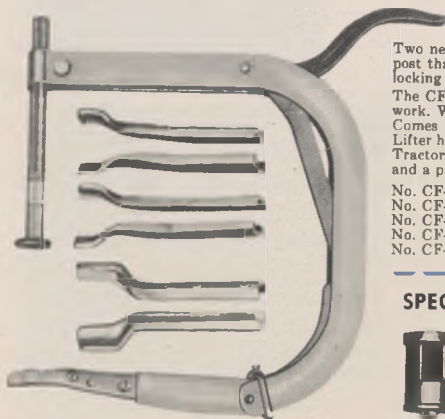
Long recognized as the most universal and versatile C-type Valve Spring Compressor on the market. It is adaptable to practically all makes of cars, will operate very successfully on trucks and is just as valuable on many makes of tractors.

The ratcheting action, its positive vertical lift and the clearance it provides all combine to make this tool a popular one among mechanics. It is also equipped with a recompression arrangement for quick, easy compression of valve springs.

Each lifter comes equipped with one pair of straight, spring steel removable jaws (as illustrated) and a set of three spring holders.

Additional jaws are available to give these Valve Lifters a wider scope of utility. Extra jaws are interchangeable with both sizes. Offset jaws are very practical where motors have low block clearance at the valve cover plate.

- | | |
|-------------|---|
| No. A-200 | Valve Lifter, 11" x 11" frame. Wt. 6½ lbs. |
| No. B-300 | Valve Lifter for trucks and tractors, 11" x 13" frame. Wt. 9 lbs. |
| No. A-200-1 | Straight Jaws. Wt. 3 oz. |
| No. A-200-2 | Special Jaws. Wt. 3 oz. |
| No. A-200-3 | Special Jaws. Wt. 3 oz. |
| No. A-200-5 | Special Jaws. Wt. 3 oz. |



NEW C-TYPE VALVE LIFTER

Two new C-type Valve Lifters—fast operating and with a threaded post that assures a positive adjustment give an 8 to 1 leverage with locking ring to hold the tool in any desired position.

The CF-11 has a frame 9½" x 11" and is built especially for garage work. Works on all makes of cars including Ford V-8 and Mercury. Comes equipped with CF-21, CF-22 and CF-23 Jaws. The CF-16 Lifter has a frame 10½" x 11½" and is built for use on Trucks, Buses, Tractors, Diesels, etc. Comes equipped with CF-21 Straight Jaws and a pair of CF-22 and CF-23 Offset Jaws are included.

- | | |
|-----------|---------------------------------------|
| No. CF-11 | Automotive C-Type Lifter. Wt. 4½ lbs. |
| No. CF-16 | Heavy Duty Lifter. Wt. 8½ lbs. |
| No. CF-21 | Straight Jaws. |
| No. CF-22 | Offset Jaws |
| No. CF-23 | Offset Jaws |

SPECIAL CADILLAC ATTACHMENT No. CF-26



Designed for use with the CF-11 Lifter equipped with the CF-21 Straight Jaws and does an exceptionally good job on Cadillac cars. For best results use the No. 851-A Valve Lock Inserters with the above tools to remove and install valve keepers.

No. CF-26—Cadillac Attach. Wt. 4 oz.

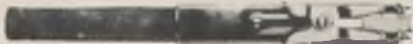


STUBBY VALVE LIFTER

No. A-150

An improved type Stubby Lifter that is more versatile and universal than the old type. Works on all L-head engines including 6 and 8 cylinder Ford. Gets in easily around manifolds, carburetors, fuel lines, fuel pumps, tappet lid stubs, etc. It has a straight lift and is guaranteed to lift up to 300 lbs.

No. A-150—Stubby Valve Lifter. Wt. 1¼ lbs.



VALVE LOCK REPLACER

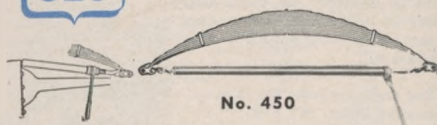
No. 851-A

One of the most successful and practical Valve Keeper Inserters on the market. Easy to load and operate, this tool gets into tight places to replace split locks on practically all makes of cars and trucks. It holds the split keepers firmly until they are placed in position and the valve spring is lowered. For best results use this tool with the A-150 Valve Lifter at the left.

No. 851-A—Valve Lock Replacer. Wt. 4 oz.



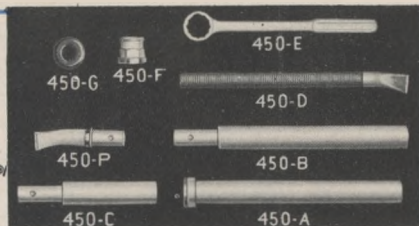
UNIVERSAL SPRING SPREADER



No. 450

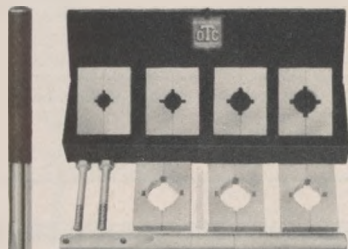
Originally designed and built for removing and installing Ford springs but works equally well on many other makes of cars. Works on all front and rear Ford springs through 1948. This tool is built from alloy steel for strength and rigidity. It has a ratchet acting wrench which speeds up the job and provides the power. No other spreader on the market is more universal or more easily operated.

No. 450—Universal Spring Spreader. Wt. 15½ lbs.
No. 450-V—No. 450 complete with 450-B1. Wt. 19½ lbs.



The No. 450 Spring Spreader is made up of the parts shown above. The combinations required to fit various models are listed below. A parts price list is given in the rear of this catalogue.

| Models | Rear Spring | Front Spring |
|----------------------------------|--------------------|-----------------|
| A & B 1928 to 1933 | Use A & D as shown | Use A, C, P & D |
| V8 1933, 1934 | Use A, C, B, P, D | Use A, C, P, D |
| V8 1935 to 1948 | Use A, C, B, P, D | Use A, P, B, D |
| Ford & Mer. Front, '46 to '48 | Use A, C, B, P, D | Use A, P, B1, D |



UNIT THREAD CHASER

Built especially for straightening and cleaning up crossed or damaged threads on axles, drive shafts, cam shafts, etc. These tools are time savers because the job can be done without removing one part from the assembly. A set of 7 dies and one handle covering the popular car sizes is illustrated above. It contains the TC-10 Handle, TC-20, TC-24, TC-28, TC-32, TC-36, TC-40 and TC-48 in a Metal Case.

No. TC-7—Set 7 Dies & Handle in box. Wt. 5 lbs.
No. TC-10—Handle (only) to fit 7 sizes. Wt. 1 lb.
No. TC-18—Handle (only) to fit TC-56 to TC-81. Wt. 1½ lbs.

No. TC-7—Set 7 Dies & Handle in box. Wt. 5 lbs.
No. TC-10—Handle (only) to fit 7 sizes. Wt. 1 lb.
No. TC-18—Handle (only) to fit TC-56 to TC-81. Wt. 1½ lbs.

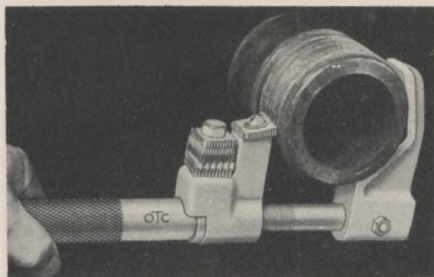
| No. | Size and Thread | Weight |
|-------|-----------------------|---------|
| TC-20 | ¾"-18 | 9 oz. |
| TC-24 | ¾"-16 | 9 oz. |
| TC-25 | ¾"-20 | 9 oz. |
| TC-28 | ¾"-14 | 8 oz. |
| TC-29 | ¾"-18 | 9 oz. |
| TC-32 | 1"-14 | 7 oz. |
| TC-36 | 1¼"-12 | 6 oz. |
| TC-40 | 1¼"-12 | 4 oz. |
| TC-48 | 1½"-12 | 4 oz. |
| TC-56 | 1½"-16 | 3½ lbs. |
| TC-58 | 1½"-14 Int. & Fd. Tr. | 3½ lbs. |
| TC-64 | 2"-12 AC-HD-10 | 3½ lbs. |
| TC-68 | 2¼"-16 Chev. Tr. | 3 lbs. |
| TC-72 | 2¼"-16 Ford Tr. | 3 lbs. |
| TC-73 | 2¼"-12 Int. Tr. | 3 lbs. |
| TC-76 | 2½"-12 Cat. Tract. | 3 lbs. |
| TC-80 | 2½"-12 Int. Tr. | 2½ lbs. |
| TC-81 | 2½"-16 AC-HD-14 | 2½ lbs. |

UNIVERSAL OUTSIDE THREAD CHASER

No. 897

A time and money saver that will restore battered and damaged threads on axle housings, axle shafts, cages, etc., without removing them from the vehicle or assembly. Also popular in factory maintenance work for similar work. It simplifies an otherwise time-consuming, expensive and difficult job. Capacity: 1¼" to 5" OD.

To operate: Apply the tool on the good threads, tighten slightly and then back off over the damaged threads. Pressure should be increased slightly on each succeeding cut until threads are restored. Individual dies and brass V-pad are not guaranteed. See parts price list in rear of catalogue.



| | |
|-----------|---|
| No. 896-A | Chaser Die, 8, 10, 12, 14 threads per inch |
| No. 896-B | Chaser Die, 16, 18, 20, 24 threads per inch |
| No. 896-C | Chaser Die, 11, 11½ threads per inch |
| No. 896-E | Chaser Die, 4, 5 threads per inch |
| No. 896-F | Chaser Die, 6, 7 threads per inch |
| No. 896-G | Chaser Die, 7½, 9 threads per inch |
| No. 897 | Thread Chaser complete with 6 dies. Wt. 4½ lbs. |



FORD CON ROD BUSHING DRIVER SET

No.
812-V

Removing and installing Ford Con Rod bushings is simplified a great deal with this inexpensive set. The Anvil No. 812 is used in a vise as illustrated. No. 812-A collar removes old bushings and 812-B installs the new bushing. These collars must be used with driving mandrel No. 813 listed and illustrated on Page 80.



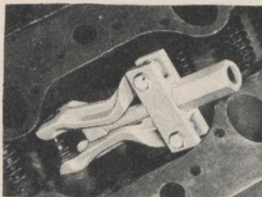
812-A 812-B

812

No. 812 Ford Con Rod Bushing Anvil. Wt. 12 oz.
No. 812-A Bushing Removing Collar. Wt. 3 oz.
No. 812-B Bushing Installing Collar. Wt. 3 oz.
No. 812-V Bushing Set of 3 above tools. Wt. 1 1/4 lbs.



FORD VALVE ASSEMBLY REMOVER No. 455

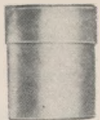


This tool removes Ford Valve assemblies quicker and easier than any other system yet devised. The tool is used as illustrated, the lever action being obtained by turning the forcing nut. A ratchet and socket will speed up the

operation. Works on all Ford V-8 models and also the Ford tractor.
No. 455—Ford Valve Assembly Remover. Wt. 2 3/4 lbs.

FORD CAMSHAFT BUSHING DRIVER No. 418

A new OTC tool built especially to remove and install V-8 Ford car and truck camshaft bushings. This tool simplifies a job that has always been a perplexing one for Ford mechanics. With this new bushing driver it is possible to remove and install these camshaft bushings in a fraction of the time normally used. Every Ford shop should have one of these time and effort saving tools.



No. 418—Ford Camshaft Bushing Driver. Wt. 6 1/2 lbs.

FORD VALVE SPRING COMPRESSOR No. 413



Another OTC tool that has been returned to the line by popular demand. This tool is built to compress the valve spring to remove the valve keeper. It is also used to pry down the valve guide so the valve guide keeper may be

removed. It is 20" long to provide plenty of leverage and is drop-forged to provide strength and long life.

No. 413—V-8 Valve Spring Compressor. Wt. 3 lbs.

FORD VALVE GUIDE LOCK PULLER No. 414

The quickest and easiest way to remove a Ford Valve Guide Lock is to use this OTC tool. The tapered end of the tool is inserted into the eye of the guide lock and with

a quick prying action the locks can be pulled. Works on V-8 cars and Ford tractor. Packed 6 to a carton.

No. 414—Ford Valve Guide Lock Puller. Wt. 1 3/4 lbs.

FORD STEERING SECTOR BUSHING DRIVER COLLAR No. 816



This is a new bushing driving collar built to remove and install the Ford steering sector bushing easily and without damage. It must be used with the driving mandrel No. 814 as listed on page 80 of Catalogue

No. 49. Anyone having OTC Bushing Driver Set No. 818 need not buy another mandrel. We recommend the purchase of Set No. 818 as other size collars will be added from time to time to make this set more universal and more useful.

No. 816—Ford Steering Sector Bushing Driver Collar (only). Wt. 6 oz.

FORD V-8 CON ROD SOCKET No. 423



A specially built, thin wall hexagon socket for use on V-8 Ford connecting rod nuts. This socket is built with a hexagon opening to prevent wear and give longer life to the tool. Works on all V-8 Fords and is used with any conventional drive handle. Because of the nature of the work this socket must do, it is not guaranteed. Packed 12 to a carton.

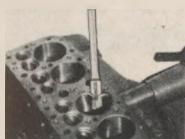
No. 423—Ford V-8 Con Rod Socket. Wt. per doz. 1 1/4 lbs.

FORD SLEEVE SLITTER

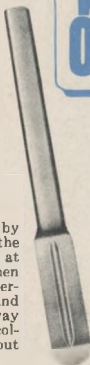
No. 493

Built especially to speed up the job of removing Ford car and tractor cylinder sleeves. This tool collapses the sleeve and simplifies this operation a great deal so a complete set of sleeves can be removed in approximately five minutes. Drop-forged from Chrome Alloy steel and fully heat-treated for rugged strength and long life. An essential tool for every Ford car and tractor service man.

No. 493—Ford Sleeve Slitter. Wt. 14 oz.



Start the tool by driving it behind the lip of the sleeve at a 45° angle. Then straighten to a vertical position and drive all the way down. Lift the collapsed sleeve out with a plier.



FORD SLEEVE INSTALLER

No. 495

Install Ford car and tractor cylinder sleeves the easy way. This tool handles only the 3 3/4" sleeve which is standard on the Mercury '39, '40, '41 and Ford tractor but works on all Ford cars using the 100 HP engine. Sleeves can be installed in a fraction of the time normally used doing this job.

No. 495—Ford Sleeve Installer.
Wt. 17 1/4 lbs.



The weight of the tool is used to drive the sleeve in. The tool is accurately machined to avoid distortion. Be sure to start the sleeve straight.



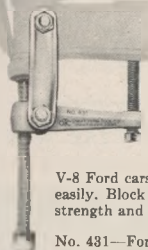
FORD KING PIN REMOVER

No. 431

This is an old OTC standby that has been returned to the line by popular demand. The action photo shows the application of this tool on one of the toughest Ford service jobs. It operates successfully on all model

V-8 Ford cars and does the job quickly and easily. Block and straps are drop-forged for strength and long life.

No. 431—Ford King Pin Remover.
Wt. 4 lbs.



SHOCK ABSORBER LINK SEPARATOR

No. 462

The fastest way to separate shock links and tie rod joints. By inserting the tapered wedge between the parts to be removed and hitting the end of the tool with a hammer, the wedge is driven between the parts, removing them. Drop-forged from Chrome Alloy steel and fully heat-treated. Between forks: 12" long overall.

No. 462—Shock Link Separator. Wt. 2 1/4 lbs.

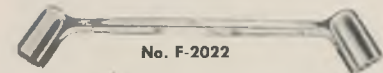


FORD FLEX WRENCH

No. F-2022

With a 3/4" opening at one end and 1 1/4" opening on the other this wrench covers the most popular size nuts used on a Ford. Wrench heads flex over at 180° with the handle. Should be in every Ford service man's kit. 10" long.

No. F-2022—Ford Flex Wrench. Wt. 3/4 lb.

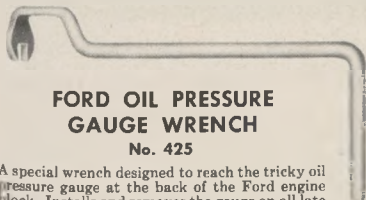


FORD OIL PRESSURE GAUGE WRENCH

No. 425

A special wrench designed to reach the tricky oil pressure gauge at the back of the Ford engine block. Installs and removes the gauge on all late model Ford cars and does this job quickly and easily. An essential tool in every Ford garage. Drop-forged from Chrome Alloy steel and fully heat-treated.

No. 425—Ford Oil Gauge Wrench. Wt. 3/4 lb.



FORD HUB BOLT PUNCH

No. 403

This tool simplifies and speeds up the job of up-setting Ford hub bolts when installing new bolts in the hub. After each blow turn the punch slightly until the bolt shoulder is peined over.

No. 403—Ford Car Hub Bolt Punch. Wt. 14 oz.

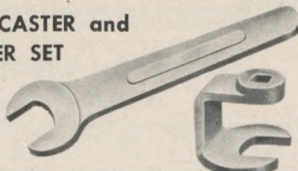


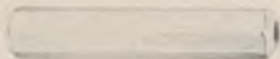
FORD CASTER and CAMBER SET

No.
433-FD

Two wrenches which handle the caster and camber adjustments on Ford and Mercury cars. The 433 Camber Wrench has a 3/4" square drive.

No. 432—Ford Caster Wrench. Wt. 3/4 lb.
No. 433—Ford Camber Wrench. Wt. 3/4 lb.
No. 433-FD—Ford Caster and Camber Set. Wt. 1 1/2 lbs.





CHEVROLET HUB BOLT PUNCHES

Four Chevrolet Hub Bolt Punches cover the entire range needed for cars and trucks. Ideal tools for peining over bolt shoulders when installing new wheel bolts.

- No. 512 $\frac{1}{4}$ " for Chev. cars. Wt. 1 lb.
 No. 512-T $\frac{1}{4}$ " for $\frac{1}{2}$ and 1 Ton Trucks. Wt. 1 lb.
 No. 513 $\frac{3}{8}$ " for $1\frac{1}{2}$ & 2 Ton Trucks. Wt. $1\frac{1}{4}$ lbs.
 No. 513-T $\frac{3}{8}$ " for Chev. Trucks up to '46. Wt. 1 lb.



DODGE FRONT SPINDLE BUSHING COLLAR No. 805



Especially designed and built to remove and install Plymouth, Dodge and DeSoto from 1937 to 1946 inclusive. This collar must be used with Driving Mandrel No. 813, as illustrated on Page 80. Size of collar $\frac{1}{4}$ " x $\frac{5}{16}$ ".

No. 805—Front Spindle Bushing Collar. Wt. 2 oz.

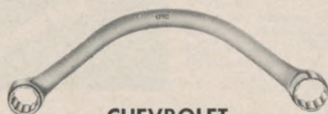


PLYMOUTH STARTER WRENCH

No. 577

This tool reaches those inaccessible starter bolts on all late model Plymouth cars. With curves and angles just right this wrench speeds up and simplifies the job of removing and installing these starters or tightening the bolts. Definitely a time saver. $\frac{5}{8}$ " openings on each end.

No. 577—Plymouth Starter Wrench. Wt. $\frac{1}{2}$ lb.

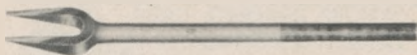


CHEVROLET STARTER WRENCHES

Two half-moon wrenches that work successfully on all model Chevrolet starters and which make play out of this tough job. The popular size 12 point box openings on these wrenches make them extremely practical on many other jobs as well. Very practical on automobiles, trucks and tractors.

No. 511—Starter Wrench, $\frac{3}{4}$ "- $\frac{3}{4}$ ". Wt. 7 oz.

No. 531—Starter Wrench, $\frac{3}{4}$ "- $\frac{3}{4}$ ". Wt. 9 oz.



PITMAN ARM WEDGE

No. 844

An ideal tool for removing Pitman arms on all passenger cars and many light trucks. The wedge end of the tool is placed between the parts to be removed and a few sharp blows with a hammer accomplishes an otherwise difficult job. A simple, fast and easy way that takes the place of complicated tools. 12" long and $1\frac{1}{8}$ " between prongs.

No. 844—Pitman Arm Wedge. Wt. $1\frac{1}{2}$ lbs.

CHRYSLER CAMBER WRENCH

Nos. 579 and 580

Two Chrysler Camber Wrenches are available for use on six and eight cylinder cars. The No. 579 has a $1\frac{1}{4}$ " opening and is for Chrysler built six cylinder cars. The No. 580 has a $1\frac{1}{4}$ " opening and is for use on Chrysler 8 cylinder cars. Both wrenches have a $\frac{3}{8}$ " 12 point opening in the handle to loosen the lock nut.

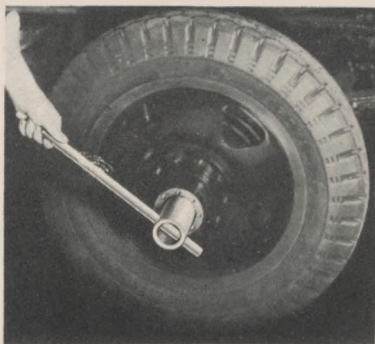
These wrenches are drop-forged from Chrome Alloy Steel and fully heat-treated for strength and long life.

No. 579—Chrysler Camber Wr., $1\frac{1}{4}$ ". Wt. $\frac{3}{4}$ lb.

No. 580—Chrysler Camber Wr., $1\frac{1}{4}$ ". Wt. $\frac{3}{4}$ lb.



CHEVROLET TRUCK REAR WHEEL WRENCH No. 530



Built and designed especially to remove the lock nut and adjust the Chevrolet Truck Rear Wheel Bearings on all late model Chevrolet trucks with full floating axles.

A slotted wrench, accurately milled, built of seamless, steel tubing and sufficiently strong for this difficult job. The opposite end of the wrench is drilled with a $\frac{3}{8}$ " hole to permit the use of a suitable lever. The handle, or lever, is not furnished with the wrench.

This wrench is a necessity in every Chevrolet service shop or in any fleet shop servicing Chevrolet trucks.

No. 530—Chev. Truck Rear Wheel Brg. Wr. Wt. 5 lbs.

No. 529—Rear Wheel Wr. for 1946 to 1949 $\frac{3}{4}$ " and 1-Ton Trucks. Wt. 4 lbs.



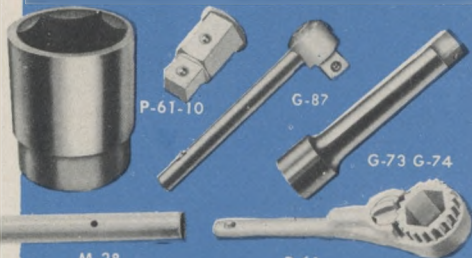
GIANT

1" SQUARE DRIVE

A rugged, well built set of sockets designed for industrial maintenance work in mills, mines, refineries, plants, utilities and on heavy construction equipment. It contains ten sockets from 2" to 3 1/4", two extensions, a stub tee handle, a reversible ratchet and a tubular extension handle for use with the tee handle and ratchet.

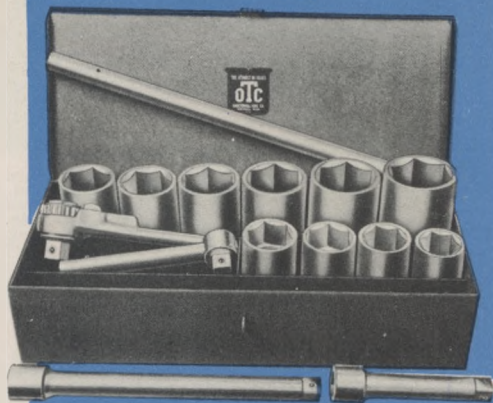
No. G-16 Giant Set complete (less G-96 Socket) wt. 90 lbs. List Price \$243.50 Dealers Net... \$146.10

SOCKET SET No. G-16



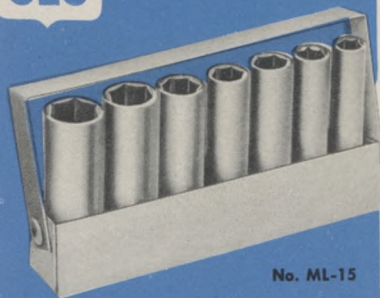
| No. | | Wt. Lbs. | List Price | Dealers Net |
|---------|--|-------------|---------------|----------------|
| G-73 | Extension 8"..... | 3 1/4 | 7.08 | 4.25 |
| G-74 | Extension 16"..... | 10.50 | 6.30 | |
| G-87 | Tee Handle 10"..... | 2 3/4 | 8.58 | 5.15 |
| P-61 | Ratchet 10"..... | 5 1/2 | 16.25 | 9.75 |
| P-61-10 | Ratchet Plug..... | 1 1/4 | 3.08 | 1.85 |
| M-28 | Tubular Handle 24"..... | 2 3/4 | 4.58 | 2.75 |
| G-90 | Metal Case, 24" x 10 1/4" x 5"..... | 18 | 18.00 | 10.80 |

| W'r'ch No. | Open- ing Size | Lgth. | Outside Dia. | | Wt. Lbs. | List Price | Dlrs. Net |
|---------------|----------------------|--------|---------------|--------------|-------------|---------------|--------------|
| | | | Socket End | Drive End | | | |
| G-64 | 2" | 2 1/8" | 2 3/4" | 2 1/2" | 2 1/2 | \$9.00 | \$5.40 |
| G-68 | 2 1/8" | 3 1/8" | 2 3/4" | 2 3/8" | 3 | 10.75 | 6.45 |
| G-70 | 2 1/4" | 3 1/8" | 3" | 2 3/8" | 3 1/4 | 11.58 | 6.95 |
| G-72 | 2 3/4" | 3 1/8" | 3 1/8" | 2 3/4" | 3 1/4 | 12.08 | 7.25 |
| G-76 | 2 3/8" | 3 3/8" | 3 1/4" | 3" | 4 1/2 | 13.17 | 7.90 |
| G-80 | 2 1/2" | 3 7/8" | 3 3/8" | 3 1/8" | 5 1/4 | 15.67 | 9.40 |
| G-84 | 2 3/4" | 4 1/8" | 3 3/8" | 3 1/2" | 6 | 20.58 | 12.35 |
| G-88 | 2 3/4" | 4 3/8" | 3 3/8" | 3 3/8" | 7 1/4 | 24.17 | 14.50 |
| G-94 | 2 13/16" | 4 3/8" | 4" | 3 3/8" | 8 3/4 | 26.92 | 16.15 |
| G-96 | 3" | 4 1/8" | 4 1/8" | 3 7/8" | 9 3/4 | 29.17 | 17.50 |
| G-100 | 3 1/4" | 4 3/8" | 4 1/4" | 3 7/8" | 9 3/4 | 31.50 | 18.90 |



DEEP MIDGET SOCKETS

3/4" SQUARE DRIVE



No. ML-15



A complete set of deep Midget Sockets, all with hexagon openings, and straight, thin walls designed especially for carburetor, refrigeration and all types of electrical work. These sockets are built of chrome alloy steel and will give a lifetime of service. For handles for use with these sockets see Page 41 of OTC general catalogue No. 49.

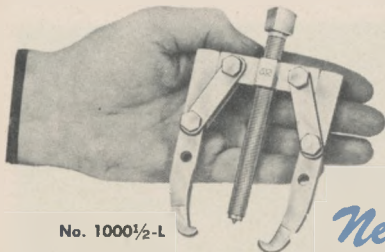
A metal carrying tray built especially to carry all seven of these sockets is available as illustrated at the left. For individual sizes and prices see the table below.

No. ML-15—Set of 7 Sockets in Metal Tray.
Wt. 1 1/2 lbs. List Price \$7.75; Dlrs. Net \$4.65

No. M-91—Metal Tray (only).

List Price... \$0.75 Dealers Net... \$0.45

| No. | Size | Lgth. | Outside Dia. | | List Price | Dlrs. Net | Wt. per Doz. |
|-------|--------|-------|---------------|--------------|---------------|--------------|-----------------|
| | | | Socket End | Drive End | | | |
| ML-8 | 1 1/4" | 2" | 3 3/8" | 1 1/2" | \$.92 | \$.55 | 3 1/4 lb. |
| ML-9 | 1 1/2" | 2" | 3 1/2" | 1 1/2" | .92 | .55 | 3 1/4 lb. |
| ML-10 | 1 3/8" | 2" | 3 1/2" | 1 1/2" | 1.00 | .60 | 1 lb. |
| ML-11 | 1 1/2" | 2" | 3 1/2" | 1 1/2" | 1.00 | .60 | 1 lb. |
| ML-12 | 1 3/4" | 2" | 3 1/2" | 1 1/2" | 1.00 | .60 | 1 1/4 lbs. |
| ML-14 | 1 3/4" | 2" | 3 1/2" | 1 1/2" | 1.08 | .65 | 1 1/2 lbs. |
| ML-16 | 1 1/2" | 2" | 11 1/16" | 11 1/16" | 1.08 | .65 | 1 1/2 lbs. |



No. 1000 1/2-L

New

Grip-O-Matic PULLER

A new small Grip-o-matic Puller with single-end jaws the next size smaller than the popular OTC No. 1001 is now available. This tool incorporates all the features of other OTC Grip-o-matics and is designed especially for pulling jobs on fractional horsepower motors, small compressors, etc.

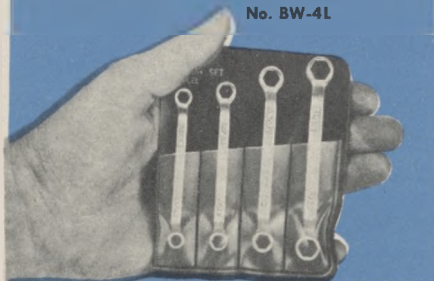
An exceptionally handy tool in automotive, refrigeration and electrical maintenance shops.

No. 1000 1/2-L—Grip-o-matic Puller. Wt. 1 1/4 lbs.

List Price \$7.50 Dealers Net. \$4.50

MIDGET BOX WRENCHES

No. BW-4L



Combination ELECTRIC SET No. BE-8L

A combination set of Open End and Box Wrenches designed especially for electrical, carburetor and instrument work that covers most of the sizes required. All wrenches are drop-forged from alloy steel and fully heat-treated for strength and long life. Box wrenches are 3/16" x 1/4", 1/4" x 3/8", 3/8" x 1/2", and 1/2" x 3/4". Open End Wrenches are 3/16" x 1/4", 1/4" x 3/8", 3/8" x 1/2", and 1/2" x 3/4". Contained in an attractive plastic kit.

No. BE-8L—Combination Electrical Set. Wt. 8 oz.

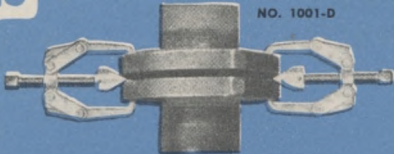
List Price \$9.17 Dealers Net. \$5.50
89-A



New

PIPE FLANGE SPREADER

NO. 1001-D



Two OTC Grip-o-matic Pullers combine to accomplish an otherwise difficult job. This pair of tools equipped with a removable wedge on the forcing screw is utilized to spread pipe flanges as illustrated above when it is necessary to remove an old gasket and install a new one. An especially useful tool in utility plants, refineries, mills and industrial plants of all kinds. Hook the jaws in the bolt holes with the tools opposite each other and turn the forcing screws alternately to spread the flange uniformly.

No. 1001-D—Pipe Flange Spreader (pair). Wt. 4 1/2 lbs.

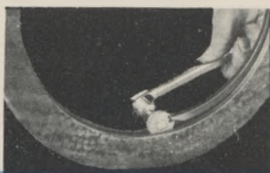
List Price \$25.33 Dealers Net. \$13.20

A set of four Midget Box Wrenches with hexagon openings built and designed especially for electrical, carburetor and instrument work. These wrenches have a different opening on each end and the set carries eight openings: 3/16" x 1/4", 1/4" x 3/8", 3/8" x 1/2", 1/2" x 3/4", 3/4" x 1", 1" x 1 1/4", 1 1/4" x 1 3/4", and 1 3/4" x 2". Contained in an attractive plastic kit.

No. BW-4L—Set of 4 Wrenches in Kit.

List Price \$5.16 Dealers Net. \$3.10

| No. | Opening Sizes | Head Diam. | Head Depth | Lgth. | List Price | Dls. Net | Wt. Doz. |
|-------|---------------|------------|------------|--------|------------|----------|----------|
| BW-6 | 3/16" x 1/4" | 3/16" | 1/4" | 3" | \$1.00 | \$0.60 | 8 oz. |
| BW-7 | 1/4" x 3/8" | 1/4" | 3/8" | 3" | 1.08 | .65 | 10 oz. |
| BW-8 | 3/8" x 1/2" | 3/8" | 1/2" | 3 3/8" | 1.17 | .70 | 12 oz. |
| BW-10 | 1/2" x 3/4" | 1/2" | 3/4" | 3 7/8" | 1.25 | .75 | 14 oz. |



SNAP RING SET No. 621

A new principle in Snap Ring Tools. These cams are designed to work on large diameter Snap Rings where the ring gap is wide enough to permit the cam to roll and thus lift the end of the ring. The cam works in the snap ring groove and is operated with a 3/4" drive flex handle and 1 1/2" extension as illustrated. Will lift snap rings up to 12" in diameter.

| No. | Set contains 3 Cams, one H-275 Flex Handle and one H-270, 1 1/2" Extension. Wt. 3/4 lb. | List Price | Dealers Net |
|-------------------------------|---|------------|-------------|
| No. 621—Snap Ring Set | | \$11.90 | \$7.15 |
| No. 621-A—Cam for 1/4" Groove | | 2.08 | 1.25 |
| No. 621-B—Cam for 1/2" Groove | | 2.08 | 1.25 |
| No. 621-C—Cam for 3/4" Groove | | 2.08 | 1.25 |

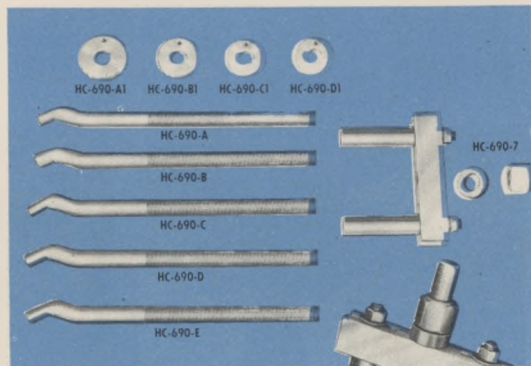


INTERNATIONAL PRE-CUP PULLER No. HC-690

Designed and built especially to pull pre-combustion cups on Interna-

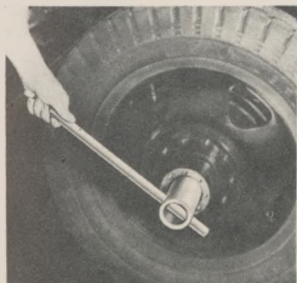
tional Diesels this tool is the only positive acting tool on the market. It will pull the cups on all models of International Diesels quickly and easily and at a substantial saving of time and effort. Five screws bent at the proper angle and of the proper diameter to fit the cup hole are furnished to fit the various models. Guide collars to fit the inside diameter of the cup are supplied to prevent the screw from pulling out of the cup.

Approved and recommended by the International Harvester Company.



| Set No. | Consists of Parts | For Models | List Price | Dealers Net |
|-----------|---|------------|------------|-------------|
| HC-690-10 | HC-690-7, HC-690-B, HC-690-B1 | 14A & 18A | \$13.25 | \$7.95 |
| HC-690-12 | HC-690-7, HC-690-B, HC-690-C1 | 16 | 13.25 | 7.95 |
| HC-690-14 | HC-690-7, HC-690-C, HC-690-C1 | 9 | 13.25 | 7.95 |
| HC-690-16 | HC-690-7, HC-690-D, HC-690-D1 | 6 | 13.25 | 7.95 |
| HC-690-18 | HC-690-7, HC-690-E, HC-690-C1, HC-690-B1 | 14 & 18 | 14.50 | 8.70 |
| HC-690-20 | HC-690-7, HC-690-A, HC-690-A1 | 24 | 13.34 | 8.00 |
| HC-690 | Complete Set consisting of HC-690-7, HC-690-A, B, C, D & E Screws and HC-690-A1, B1, C1 and D1 Guide Collars in H-99 Metal Case | All Models | 34.50 | 20.70 |

This illustration shows the puller assembled properly for operation. Be sure to select the right screw and right guide collar.



CHEVROLET TRUCK REAR AXLE NUT WRENCH No. 529

Smaller in size than the No. 530 (Page 86) but similar to it, this wrench is built especially to remove the lock nut and adjust the rear axle bearings on the 3/4 and 1 ton Chevrolet Truck from 1946 to 1949 inclusive. Accurately milled to size, built of seamless steel tubing this wrench has a pilot incorporated in it to prevent it from cocking when pressure is applied. The handle or lever is not supplied with the wrench.

No. 529 - Chev. Truck Axle Nut Wr.

Wt. 4 lbs.

List Price \$9.42 Dealers Net \$5.65



No. 958

Chrysler Pinion Oil Seal Pulling Attachment

An attachment designed especially for use with an OTC Slide Hammer Puller No. 943-S (Page 9) to pull the Pinion Shaft Oil Seal on all model Chrysler built cars.

This tool is hollow and fits over the pinion shaft so that the buttress threads can be threaded into the Oil Seal to obtain a grip. The slide hammer is then hooked up to the attachment and the oil seal pulled in this manner. This tool will save time and money in any shop servicing Chrysler built cars.

No. 958 - Pinion Oil Seal Attach.

Wt. 2 3/4 lbs.

List Price \$6.84

Dealers Net 4.10



STEERING WHEEL PULLER

No. 915

A new tool designed and built especially to pull steering wheels, flanges, pulleys, etc., which are tapped for cap screws. This tool is especially good for pulling steering wheels and will do this job on Chevrolet, Ford, Nash, Hudson, Oldsmobile, Buick, Pontiac and others. A nipple No. 917-3 is supplied with this tool to provide a base when used over a hollow shaft.

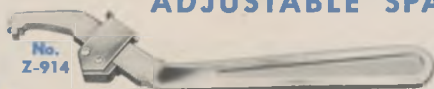
No. 915 - Steering Wheel Puller.

Wt. 1 lb.

List Price \$4.00 Dealers Net \$2.40



ADJUSTABLE SPANNER WRENCH



An ideal tool for pillow block bearings which will eliminate an entire range of fixed size spanners. Works exceptionally well on Model "M" International tractor water pump and adjusts the power

on all International tractor models. Adjustable from $\frac{1}{8}$ " to $2\frac{3}{4}$ " and is practical for use on turret nuts within that range. Drop-forged from Chrome alloy steel and fully heat-treated.

No. Z-914—Adjustable Spanner Wr. Wt. $\frac{3}{4}$ lb. List Price \$3.34 Dealers Net \$2.00



SPECIAL JAWS FOR PILOT BEARING PULLER

A new pair of extra long jaws built especially for use with the No. 954 Pilot Bearing Puller (Page 13) to provide additional reach where it is needed. All other jaws for this tool have a 1" reach while this pair has a 2" reach.

No. 955-14—Special Jaws only for 954.

Wt. 4 oz.

List Price \$5.00 Dealers Net \$3.00

No. 954-C—Pilot Bearing Puller with

Pair 955-14 Jaws. Wt. 4 lbs.

List Price \$13.00 Dealers Net \$7.80

No. 955-14

SPARK PLUG THREAD CHASER



Nos. M-1014 & M-1828

Two new Spark Plug Thread Chasers are now available to cover all the popular spark plug hole sizes. This tool cleans the carbon from the spark plug hole thus insuring better performance. It straightens and restores crossed or damaged threads and assures a better fit.

No. M-1014—Chaser with 10 MM and 14 MM Threads.

Wt. 6 ozs.

List Price \$2.25 Dealers Net \$1.35

No. M-1828—Chaser with 18 MM and $\frac{1}{8}$ "-18 Threads.

Wt. 6 ozs.

List Price \$2.25 Dealers Net \$1.35



Pontiac Caster-Camber Adjusting Wrench

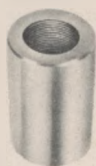
This new wrench is built especially for Caster and Camber Adjustments on all 1949 Model Pontiacs. It has a $1\frac{1}{4}$ " opening with a $1\frac{1}{2}$ " square drive to permit the use of conventional socket handles. An essential wrench in all Pontiac shops and in shops specializing in front-end work.

No. 581—Pontiac Caster-Camber Wrench. Wt. $\frac{3}{4}$ lb.

List Price \$3.25 Dealers Net \$1.95

No. 581

FORD TRUCK PINION SHAFT ATTACHMENT



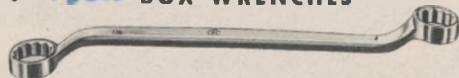
This attachment is designed for use with the OTC No. 927 Push-Puller for pulling the Pinion Shaft on $\frac{3}{4}$ and 1 Ton Ford Trucks from 1942 to 1947 inclusive. It is a new addition to the Pinion Shaft Set as illustrated on Page 12 and should be purchased with that set.

No. 929-A—Ford Truck Pinion Attachment. Wt. $\frac{1}{2}$ lb.

List Price \$3.25 Dealers Net \$1.95

No. 929-A

4 New BOX WRENCHES



Four additional box wrenches in popular size combinations have been added to increase the range of these fine tools. Only essential sizes are provided in OTC Double Offset Box Wrenches and popular demand for new combinations of sizes forced the addition of these new numbers. See Page 62 for complete sets.

ALLIS-CHALMERS SPECIAL TOOLS

A split collet type tool for installing the Model "C" Axle Oil Seal properly. Place the two halves around the axle shaft between the flange on the outer end of the shaft and the Oil Seal. The axle is then pressed into place, the flange on the driver stopping against the housing thus locating the seal at the proper depth. The axle is then moved back far enough to remove the tool.

No. AC-643—Model "C" Oil Seal Driver. Wt. $\frac{1}{4}$ lb.

List Price \$6.41

Dealers Net \$3.85

Model C Oil Seal Driver



No. AC-643

Model "C" & "B" AXLE NUT WRENCH No. AC-644

Built especially for the Model "C" and "B" Final Drive Axle Nut. It has a $2\frac{1}{4}$ " opening, is $\frac{1}{4}$ " thick and is 16" long overall. An essential tool for all A-C dealers.

No. AC-644—Final Drive Axle Nut Wrench. Wt. 6 lbs.

List Price \$13.75 Dealers Net \$8.25

| Wrench No. | Size Openings | Lgth. | Weight Per Doz. Lbs. Oz. | List Price | Dealers Net |
|------------|------------------------------------|--------------------|--------------------------|------------|-------------|
| B-1416 | $\frac{3}{8}$ "- $\frac{1}{2}$ " | 8" | 2 — | \$1.83 | \$1.10 |
| B-1820 | $\frac{7}{8}$ "- $\frac{1}{2}$ " | 9" | 3 — | 2.17 | 1.30 |
| B-3436 | $1\frac{1}{8}$ "- $1\frac{1}{2}$ " | 15 $\frac{1}{2}$ " | 12 — | 5.41 | 3.25 |
| B-4042 | $1\frac{1}{4}$ "- $1\frac{3}{4}$ " | 18" | 18 — | 6.92 | 4.15 |

SET SCREW WRENCHES

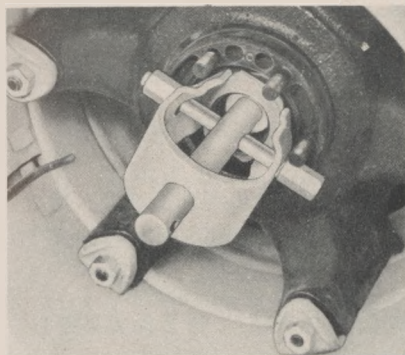
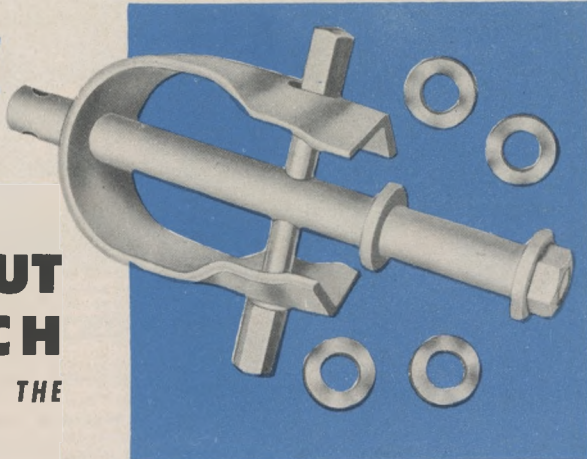
Larger sizes of the popular Allen Set Screw Wrenches are now available to complete the range. See Page 80 for smaller sizes. Built of alloy steel, fully heat-treated and plated.

| Tool No. | Size | Length | Weight Each | List Price | Dealers Net |
|----------|------------------|--------------------|----------------------|------------|-------------|
| W-16 | $\frac{1}{2}$ " | 8 $\frac{1}{2}$ " | 10 ozs. | \$1.00 | \$.60 |
| W-18 | $\frac{9}{16}$ " | 10" | 1 lb. | 1.25 | .75 |
| W-20 | $\frac{5}{8}$ " | 10" | 1 $\frac{1}{4}$ lbs. | 1.83 | 1.10 |
| W-24 | $\frac{3}{4}$ " | 11 $\frac{3}{4}$ " | 2 lbs. | 2.50 | 1.50 |
| W-32 | 1" | 15" | 4 $\frac{1}{4}$ lbs. | 4.50 | 2.70 |



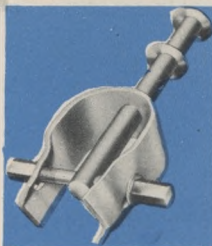
TRUCK AXLE NUT WRENCH

THE WHEEL DOES THE
WORK



Ease of operation recommends this adjustable wrench which operates on truck rear axle lock and bearing adjusting nuts, front axle nuts and trailer axle nuts. Four hexagon sizes cover a range from 2" to 4 1/4" and three Octagon sizes cover a range from 3" to 5" as shown below. These wrenches simplify and speed up the operation of removing the lock nut and adjusting the bearing nut on full floating truck axles and will last indefinitely. They can also be used to advantage on truck front and trailer axle nuts which make them universal in scope and less expensive than the old style tubular wrench.

| Wrench No. | Sizes | Equipped With Pilot Washers No. | Weight | List Price | Dealers Net |
|------------|----------------------|---------------------------------|------------|------------|-------------|
| 1202 | 2" to 2 3/4" Hex | WA-1, WA-2, WA-3 | 8 1/2 Lbs. | \$11.50 | \$6.95 |
| 1204 | 2 1/2" to 2 3/4" Hex | WA-3, WA-4, WA-5 | 9 Lbs. | 12.50 | 7.50 |
| 1205 | 3" to 3 1/2" Oct | WA-3, WA-4, WA-5 | 9 Lbs. | 12.50 | 7.50 |
| 1206 | 3" to 3 1/2" Hex | WA-5, WA-6, WA-7 | 9 1/2 Lbs. | 13.25 | 7.95 |
| 1207 | 3 3/8" to 4 1/4" Oct | WA-5, WA-6, WA-7 | 9 1/2 Lbs. | 13.25 | 7.95 |
| 1208 | 3 3/8" to 4 1/4" Hex | WA-7, WA-8, WA-9 | 9 1/2 Lbs. | 14.17 | 8.50 |
| 1209 | 4 3/8" to 5" Oct | WA-7, WA-8, WA-9 | 9 1/2 Lbs. | 14.17 | 8.50 |

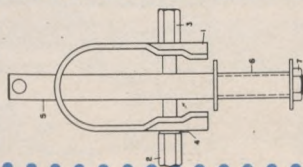


Three sizes of Pilot Washers are available to fit the I.D. of various makes and models of truck axle tubes. Washers may be turned down to fit if necessary. Three pairs of washers are supplied with each wrench.

| Washer No. | Size | List Price | Dealers Net |
|------------|--------|------------|-------------|
| WA-1 | 1 1/2" | \$.17 | \$.10 |
| WA-2 | 1 3/4" | .17 | .10 |
| WA-3 | 1 7/8" | .17 | .10 |
| WA-4 | 2" | .25 | .15 |
| WA-5 | 2 1/8" | .25 | .15 |
| WA-6 | 2 1/4" | .25 | .15 |
| WA-7 | 2 3/8" | .33 | .20 |
| WA-8 | 2 1/2" | .33 | .20 |

OPERATION: Install Pilot Washers on the tool to fit the inside diameter of the axle tube. (Washers can be turned down to fit if necessary). Remove axle. Release lock washer. Adjust wrench to proper size and install on axle nut. The cross bolt is adjustable to permit it to enter between the wheel studs and is used to turn the wrench. Tighten the wrench on the nut, then **TURN THE WHEEL** to loosen or tighten the axle nut.

When used on truck front axle or trailer axle nuts the center shank of the wrench is reversed (turned end for end) as shown at the right. The hole in the center shank permits the use of a bar to turn the wrench.



Parts Price List

These parts are interchangeable with each wrench body.

| Wrench Body No. | List Price | Dealers Net | Wrench Parts | List Price | Dealers Net |
|-----------------|------------|-------------|--------------|------------|-------------|
| 1202-1 | \$3.91 | \$2.35 | 1202-2 | \$1.17 | \$.70 |
| 1204-1 | 4.75 | 2.85 | 1206-2 | 1.33 | .80 |
| 1205-1 | 4.75 | 2.85 | 1202-3 | 1.33 | .80 |
| 1206-1 | 5.75 | 3.45 | 1202-4 | .08 | .05 |
| 1207-1 | 5.75 | 3.45 | 1202-5 | 4.34 | 2.60 |
| 1208-1 | 6.25 | 3.75 | 1202-6 | .75 | .45 |
| 1209-1 | 6.25 | 3.75 | 1202-7 | .25 | .15 |

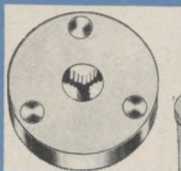
Note: 1202-2 Bolt is interchangeable on wrenches 1202, 1204 and 1205
1206-2 Bolt is interchangeable on wrenches 1206, 1207, 1208 and 1209



STUD WRENCH

No. 879

CAPACITY
1/4" TO 1/2"

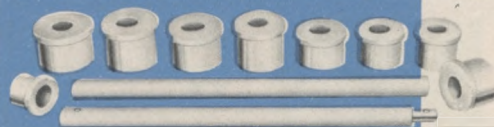


A new Stud Wrench which can be used either to remove or install cylinder studs. This tool requires less room to operate since it turns on its own center and is not eccentric. Its maximum diameter is 2". It is a quick acting, positive gripping wrench which tightens as pressure is applied. It can be operated either with a 1/2" drive socket handle or a 1" open end or box wrench. The jaw teeth are built of special alloy steel milled for either right or left hand turns and are easily installed when new ones are needed. Wrench is easily released by simple turning of knurled collar.

No. 879 Stud Wrench 1/4" to 1/2", Wt. 1 1/4 Lbs., List Price \$10.83, Dealers Net \$6.50.

No. 879-A Set of Jaws for 879, List Price \$3.33, Dealers Net \$2.00.

INTERNATIONAL CAMSHAFT BEARING INSTALLING SET



A complete set of nine driving collars to fit the job of installing camshaft bearings in International tractors with one driving handle to fit all nine sizes. This set of tools handles the installation of camshaft bearings easily and quickly and without damage to the bearings. This is the first time such a set has been made available and every International dealer can profit by the addition of these tools to his service equipment.

This set was developed in cooperation with International Service engineers and is approved and recommended by the International Harvester Co.

No. HC-22-A Driver Handle (Only) Wt. 5 Lbs., List price \$5.92, Dealers Net \$3.55.

No. HC-22 Complete Set of 9 Collars, One Driving Handle in Metal Box, Wt. 21 1/2 Lbs., List Price \$37.59, Dealers Net \$22.55.



BRAKE ADJUSTING TOOLS

Nos. 775 and 776

Two special Brake Adjusting Tools handle this work on a majority of cars. These tools are forged from alloy steel and built to withstand long service.

No. 775 handles two major adjustments—the cog screw and eccentric stabilizer on General Motors cars from 1936 and up. Also works on Hudson and others. No. 776 works on Chevrolet cars and also operates on Bendix brakes.

No. 775 Brake Tool Wt. 6 Oz. List Price \$1.67, Dealers Net \$1.00.

No. 776 Brake Tool Wt. 6 Oz. List Price \$1.25, Dealers Net \$.75.

New CHEVROLET STARTER WRENCH

NO. 532

A new wrench that handles the almost inaccessible starter bolts on 1949 and 1950 Chevrolet cars. This wrench permits access to the starter bolts without removing the solenoid. It has a 3/4" opening and is drop forged from alloy steel for strength and long life. An indispensable wrench in all Chevrolet and general repair shops.

No. 532 Chevrolet Starter Wrench, Wt. 1 Lb., List Price \$2.58, Dealers Net \$1.55.



| Driver No. | Tractor Bearing No. | On Engine Model | Wt. Lbs. | List Price | Dealers Net |
|------------|--------------------------------|---|----------|------------|-------------|
| HC-22-1 | 51972-DR, 51305-DAR | MD & D6 Series, Diesel 3 1/2" x 3 1/4", D9 Series Diesel, 4.4 x 5.5-4 | 2 3/4 | \$3.92 | \$2.35 |
| HC-22-2 | 51973-DR, 52796-DAR, 51306-DAR | MD & D6 Series, Diesel, 9 Series Carb. 4.4 x 5.5-4, D-9 Series, Diesel | 2 3/4 | 4.00 | 2.40 |
| HC-22-3 | 53422-DA | M & 6 Series, Carb. 3 1/2" x 5 1/4"-4 | 2 | 3.25 | 1.95 |
| HC-22-4 | 51974-DR, 52797-DAR, 51307-DAR | MD & D6 Series, Diesel, 9 Series, Carb., D9 Series, Diesel | 2 | 3.33 | 2.00 |
| HC-22-5 | 53423-DB | M & 6 Series, Carb. | 1 1/2 | 2.92 | 1.75 |
| HC-22-6 | 53419-DA | H & 4 Series, Carb. | 1 3/4 | 2.84 | 1.70 |
| HC-22-7 | 53424-DA, 51308-DAR | M & 6 Series, Carb., MD & D6 Series, Diesel, 9 Series, Carb., D9 Series, Diesel | 1 | 2.50 | 1.50 |
| HC-22-8 | 53420-DA | H & 4 Series, Carb. | 1 | 2.67 | 1.60 |
| HC-22-9 | 53421-DA | H & 4 Series, Carb. | 3/4 | 1.67 | 1.00 |

Yes...
1+1=42*

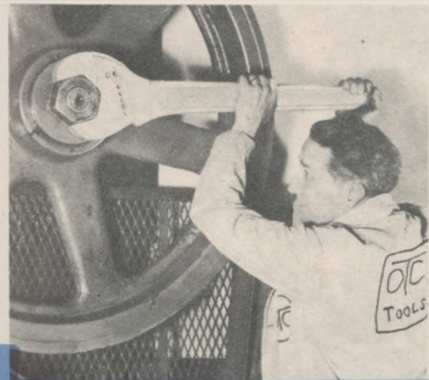
with the NEW GIANT ALLOY OTC ADJUSTABLE WRENCHES

THINNER—LIGHTER—STRONGER

There is no need now to carry an arm load of heavy, bulky, carbon steel, fixed size wrenches to each job. The OTC SLIM TWINS are THIN to provide ready access on each job, and they are LIGHT, easy to carry and use, and they are STRONG because they are drop-forged from high alloy steel, and they COST LESS than fixed size wrenches covering the same sizes. These wrenches are ideal for maintenance work in mills, mines, refineries, ship yards, railroad shops, utility plants and all kinds of manufacturing plants. They are exceptionally practical for use on industrial tractors and large earth moving equipment, diesel engines, pumps, turbines, power shovels and other heavy machines and machine tools.

With the OTC SLIM TWINS it takes only two wrenches to fit 29 sizes. The smallest wrench No. OA-24 is 24" long, $\frac{3}{8}$ " thick and adjusts from 1 $\frac{1}{2}$ " to 2 $\frac{1}{2}$ ". The largest wrench No. OA-36 is 36" long, 1 $\frac{1}{4}$ " thick and adjusts from 2 $\frac{1}{2}$ " to 4 $\frac{3}{4}$ ".

| | List Price | Dealers Net |
|---|------------|-------------|
| No. OA-24—Adjustable Wrench. Wt. 10 lbs. | \$37.50 | \$22.50 |
| No. OA-36—Adjustable Wrench. Wt. 22 lbs. | 61.25 | 36.75 |



THIS



NOT
THIS

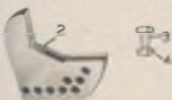
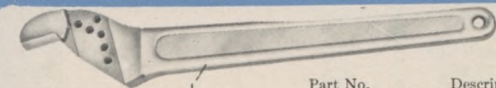


EXCLUSIVE DESIGN
GIVES ADDED
STRENGTH IN PROPERLY
LOCATED LEVERAGE POINTS
FOR LONG SERVICE.

PATENT
APPLIED
FOR

PARTS LIST

| Part No. | Description | List Price | Dealers Net |
|-----------|--------------------------------|------------|-------------|
| OA-24-1 | Handle for OA-24 | \$25.83 | \$15.50 |
| OA-24-2 | Adjusting Jaw for OA-24 | 11.08 | 6.65 |
| OA-24-3-4 | Special Bolt and Nut for OA-24 | 1.00 | .60 |
| OA-36-1 | Handle for OA-36 | 39.92 | 23.95 |
| OA-36-2 | Adjusting Jaw for OA-36 | 20.83 | 12.50 |
| OA-36-3-4 | Special Bolt and Nut for OA-36 | 1.25 | .75 |





"USEFUL INFORMATION"

Fractions of an Inch in Equivalent Decimals

For Use In Connection With Micrometer Calipers

| Fractions of an Inch | | Decimals of an Inch |
|----------------------------|---|---------------------------|
| $\frac{1}{64}$ | = | .015625 |
| $\frac{1}{32}$ | = | .03125 |
| $\frac{3}{64}$ | = | .046875 |
| $\frac{1}{16}$ | = | .0625 |
| $\frac{5}{64}$ | = | .078125 |
| $\frac{3}{32}$ | = | .09375 |
| $\frac{7}{64}$ | = | .109375 |
| $\frac{1}{8}$ | = | .125 |
| $\frac{9}{64}$ | = | .140625 |
| $\frac{5}{32}$ | = | .15625 |
| $\frac{11}{64}$ | = | .171875 |
| $\frac{3}{16}$ | = | .1875 |
| $\frac{13}{64}$ | = | .203125 |
| $\frac{7}{32}$ | = | .21875 |
| $\frac{15}{64}$ | = | .234375 |
| $\frac{1}{4}$ | = | .250 |
| $\frac{17}{64}$ | = | .265625 |
| $\frac{9}{32}$ | = | .28125 |
| $\frac{19}{64}$ | = | .296875 |
| $\frac{5}{16}$ | = | .3125 |
| $\frac{21}{64}$ | = | .328125 |
| $\frac{11}{32}$ | = | .34375 |
| $\frac{23}{64}$ | = | .359375 |
| $\frac{3}{8}$ | = | .375 |
| $\frac{25}{64}$ | = | .390625 |
| $\frac{13}{32}$ | = | .40625 |
| $\frac{27}{64}$ | = | .421875 |
| $\frac{7}{16}$ | = | .4375 |
| $\frac{29}{64}$ | = | .453125 |
| $\frac{15}{32}$ | = | .46875 |
| $\frac{31}{64}$ | = | .484375 |
| $\frac{1}{2}$ | = | .500 |

| Fractions of an Inch | | Decimals of an Inch |
|----------------------------|---|---------------------------|
| $\frac{33}{64}$ | = | .515625 |
| $\frac{17}{32}$ | = | .53125 |
| $\frac{35}{64}$ | = | .546875 |
| $\frac{9}{16}$ | = | .5625 |
| $\frac{37}{64}$ | = | .578125 |
| $\frac{19}{32}$ | = | .59375 |
| $\frac{39}{64}$ | = | .609375 |
| $\frac{5}{8}$ | = | .625 |
| $\frac{41}{64}$ | = | .640625 |
| $\frac{21}{32}$ | = | .65625 |
| $\frac{43}{64}$ | = | .671875 |
| $\frac{11}{16}$ | = | .6875 |
| $\frac{45}{64}$ | = | .703125 |
| $\frac{23}{32}$ | = | .71875 |
| $\frac{47}{64}$ | = | .734375 |
| $\frac{3}{4}$ | = | .750 |
| $\frac{49}{64}$ | = | .765625 |
| $\frac{25}{32}$ | = | .78125 |
| $\frac{51}{64}$ | = | .796875 |
| $\frac{13}{16}$ | = | .8125 |
| $\frac{53}{64}$ | = | .828125 |
| $\frac{27}{32}$ | = | .84375 |
| $\frac{55}{64}$ | = | .859375 |
| $\frac{7}{8}$ | = | .875 |
| $\frac{57}{64}$ | = | .890625 |
| $\frac{29}{32}$ | = | .90625 |
| $\frac{59}{64}$ | = | .921875 |
| $\frac{15}{16}$ | = | .9375 |
| $\frac{61}{64}$ | = | .953125 |
| $\frac{31}{32}$ | = | .96875 |
| $\frac{63}{64}$ | = | .984375 |
| 1 in. | = | 1.000 |

STANDARD HEXAGON BOLT AND NUT SIZES

| Wrench Openings | U. S. Standard | | U. S. E. Std. | American Std. | |
|--------------------|-------------------|----------------|--------------------|-------------------------|----------------|
| | Bolts and Nuts | Cap Screws | Screws and Nuts | Bolts and Nuts | Cap Screws |
| $\frac{3}{16}$ | $\frac{3}{16}$ | $\frac{3}{16}$ | | No. 10 | |
| $\frac{7}{16}$ | | $\frac{1}{4}$ | $\frac{7}{16}$ | Nos. 12 & $\frac{1}{4}$ | $\frac{1}{4}$ |
| $\frac{1}{2}$ | $\frac{1}{4}$ | $\frac{5}{16}$ | $\frac{5}{16}$ | | $\frac{5}{16}$ |
| $\frac{9}{16}$ | | $\frac{3}{8}$ | $\frac{3}{8}$ | | $\frac{3}{8}$ |
| $\frac{19}{32}$ | $\frac{5}{16}$ | $\frac{7}{16}$ | $\frac{7}{16}$ | | $\frac{7}{16}$ |
| $\frac{3}{4}$ | $\frac{3}{8}$ | $\frac{1}{2}$ | $\frac{1}{2}$ | | $\frac{1}{2}$ |
| $\frac{11}{16}$ | $\frac{7}{16}$ | | | $\frac{7}{16}$ | $\frac{1}{2}$ |
| $\frac{3}{4}$ | | | | | |
| $\frac{23}{32}$ | $\frac{7}{16}$ | $\frac{9}{16}$ | $\frac{9}{16}$ | $\frac{1}{2}$ | $\frac{9}{16}$ |
| $\frac{13}{16}$ | | $\frac{5}{8}$ | $\frac{5}{8}$ | $\frac{9}{16}$ | $\frac{5}{8}$ |
| $\frac{7}{8}$ | $\frac{1}{2}$ | | $\frac{3}{8}$ | $\frac{5}{8}$ | |
| $\frac{15}{16}$ | $\frac{9}{16}$ | $\frac{3}{4}$ | $\frac{11}{16}$ | | $\frac{3}{4}$ |
| $\frac{31}{32}$ | $\frac{5}{8}$ | $\frac{7}{8}$ | $\frac{3}{4}$ | | $\frac{7}{8}$ |
| 1 | $\frac{3}{4}$ | 1 | $\frac{7}{8}$ | | 1 |
| $1\frac{1}{16}$ | | $1\frac{1}{8}$ | | | |
| $1\frac{1}{4}$ | | | | | |
| $1\frac{1}{2}$ | | | | | |
| $1\frac{3}{4}$ | | | | | |
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| $5\frac{3}{4}$ | | | | | |
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SQUARE HEAD BOLTS AND SQUARE NUTS

| Wrench Openings | U. S. Standard | | Std. | American Std. | |
|--------------------|-------------------|----------------|--------------------|-------------------|----------------|
| | Bolts and Nuts | Cap Screws | Screws and Nuts | Bolts and Nuts | Cap Screws |
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PRICE**TOTAL**

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